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175259

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From: Whiteman, Brian  
Sent: Wednesday, December 28, 2005 3:20 PM  
To: STIC-Biotech/ChemLib  
Subject: seq search

RECEIVED  
DEC 29 2005  
STIC-BIOTECH/ChemLib  
(STIC)

09/610,313 Barnett et al.

SEQ ID NO: 30, 31, and 32

1) search us patent and published US patent application databases

Thank you,

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Remsen, 2D14  
mail box 2C18  
Patent Examiner - Art Unit 1635  
United States Patent and Trademark Office  
(571) 272-0764

\*\*\*\*\*

Searcher: \_\_\_\_\_  
Searcher Phone: \_\_\_\_\_  
Date Searcher Picked up: \_\_\_\_\_  
Date completed: \_\_\_\_\_  
Searcher Prep Time: \_\_\_\_\_  
Online Time: \_\_\_\_\_

\*\*\*\*\*

Type of Search  
NA# \_\_\_\_\_ AA# \_\_\_\_\_  
S/L: \_\_\_\_\_ Oligomer: \_\_\_\_\_  
Encode/Transl: \_\_\_\_\_  
Structure #: \_\_\_\_\_ Text: \_\_\_\_\_  
Inventor: \_\_\_\_\_ Litigation: \_\_\_\_\_

\*\*\*\*\*

Vendors and cost where applicable  
STN: \_\_\_\_\_  
DIALOG: \_\_\_\_\_  
QUESTEL/ORBIT: \_\_\_\_\_  
LEXIS/NEXIS: \_\_\_\_\_  
SEQUENCE SYSTEM: \_\_\_\_\_  
WWW/Internet: \_\_\_\_\_  
Other (Specify): \_\_\_\_\_

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Db	181	CCGGGCGGACCGGACGGGACACCGTGAAGCTTCAACTTCCCAAGATCAACCTGTGGACAGC	240
OY	398	GGCCCTGTGTAGCATCAAGGTGGCGGCGCAGATCAAGAGAGCCCTGTGGACAACCGGCG	457
Db	241	GGCCCTGTGTACCATCAAGATTCGGCGGCGCAGCTCAAGAGAGCGGTGTCTGGACAACCGGCG	300
OY	458	CCGACGACACCGTGTGGAGAGATGAGCTTGCCTCCGCAAGTGGAGCCCAAGATATCG	517
Db	301	CCGACGACACCGTGTGTGGAGAGATGAACCTTGCCTCCGCAAGTGGAGCCCAAGATATCG	360
OY	518	GGGGCATGGGGGCTTCAATCAAGGTGGGCGAGTACAGATCCGTATTCAGATCTTGG	577
Db	361	GGGGGATGGGGGCTTCAATCAAGGTGGGCGAGTACAGATCCCGTGGAGATCTTGG	420
OY	578	GCAAGAAAGGCATCGGCAACCGTGTGATTCGGCCCAACCCCGGTGAACATCATCGGCGCA	637
Db	421	GCAAGAAAGGCATTCGGCAACCGTGTGTGGGCGCCCAACCCCGTGAACATCATTCGGCGCA	480
OY	638	ACATGCTGACCCCAAGCTGGGCTTGCACCTTGAACTTCCCATAGCCCATCGAGACCGTGC	697
Db	481	ACCTGCTGACCCAGATCGGCTTGCACCTTGAACTTCCCATAGCCCATCGAGACGCTGC	540
OY	658	CCGTGAACCTGAAGCCCGGCAATGGAACGGCCCAAGTGAACGATGTGGCCCTTGAACCGAG	757
Db	541	CCGTGAACCTGAAGCCCGGGAATGGAACGGCCCAAGTGAACGATGTGGCCCTTGAACCGAG	600
OY	758	AGAAATCAAGGACCTTGAACCGCATCTGCGAGAGATGAGAGAGAGGGGCAAGATCAACA	817
Db	601	AGAAATCAAGGACCTTGTGTGAGATCTTGCACGAGATGAGAGAGAGGGGCAAGATCAACA	660
OY	818	AGATGGGCCCCGAGAACCTCTTACAAACACCCCGGTGTGGCATCAAGAGAGAGCAGCA	877
Db	661	AGATGGGCCCCGAGAACCTCTTACAAACACCCCGGTGTGGCATCAAGAGAGAGCAGCA	720
OY	878	CCAATGGGCGCAAGCTGTGTGACCTTCCCGAGCTTGAACAAACGGCACCCAGGACTTTTGGG	937
Db	721	CCAATGGGCGCAAGCTGTGTGACCTTCCCGAGCTTGAACAAACGGCACCCAGGACTTTTGGG	780
OY	938	AGGTGCACCTGGGCAATCCGCCCAACCCCGGCGGCTTGAAGAGAGAGAGCGTGC	997
Db	781	AGGTGCACCTGGGCAATCCGCCCAACCCCGGCGGCTTGAAGAGAGAGAGCGTGC	840
OY	998	TGGAAGTGGGCGACGCTTACTTCAAGCGTTCGCCGTGACAGAGACTTCCGACAGTACACCG	1057
Db	841	TGGAAGTGGGCGACGCTTACTTCAAGCGTTCGCCGTGACAGAGACTTCCGCAAGTACACCG	900
OY	1058	CCTTCAACCATCCCGACGATCAACAAAGAGACCCCGGCAATCCGCTTACCAAGTACAACTGTC	1117
Db	901	CCTTCAACCATCCCGACGATCAACAAAGAGACCCCGGCAATCCGCTTACCAAGTACAACTGTC	960
OY	1118	TGCCCCAGGGGCTGGAAGGGGAGGCCCCAGCATTTTCAGAGGACGATGACCAAGATCTTGG	1177
Db	961	TGCCCCAGGGGCTGGAAGGGGAGGCCCCCGCATTTTCAGAGGACGATGACCAAGATCTTGG	1028
OY	1178	AGCCCTTCCGGCGCCGCAACCCCGAGATCTGTATCTTACAGTACATGAGACACTTGTACG	1237
Db	1021	AGCCCTTCCGGCAAGAGAACCCCGACATCTGTATCTTACAGTACATGAGACACTTGTACG	1088
OY	1238	TGGGCAAGCGACTTGGAGATTCGGCCACGACCCGCGCCAGATGAGAGGCTTGGCAAGCAC	1297
Db	1081	TGGGCAAGCGACTTGGAGATTCGGCCACGACCCGCGCCAGATGAGAGGCTTGGCGCAAGCAC	1140
OY	1298	TGCTGGCGCTGGGGCTTTCACACCCCGGCAAGAAACACCAAGAGAGGCCCTTCTCTGT	1357
Db	1141	TGCTGGCGCTGGGGCTTTCACACCCCGGCAAGAAACACCAAGAGAGGCCCTTCTCTGT	1200
OY	1358	GGATGGGCTTACGAGCTTGACCCCGCAAGTGGACGCTGACGCCCATCGAGCTGCCGAGAG	1417
Db	1201	GGATGGGCTTACGAGCTTGACCCCGCAAGTGGACGCTGACGCCCATCATGTCTGCCGAGAG	1266
OY	1418	AGGAGAGCTTGAACCGTGAACGACATCCAGAACTGTGGGCAAGCTGAACTTGGGCGACCC	1477

Db	1261	AGGACACTGGAACCGTGAACGACATCCAGAAAGCTGTGGGGAAGCTGAACCTGGGCGAGCC	13220
Qy	1478	AGATCTACCCCGGATCAAGGTGCGCAAGCTGTGCAAGCTGTGCGCGCGCCCAAGGCC	1537
Db	1321	AGATCTACCGCGGATCAAGGTGAAGCAGCTGTCAAGCTGTCTCGCGGCAACAGGCC	13800
Qy	1538	TGATCGGACATCGTACCCCTGACCGAAGGAGCGGAGCTGGAGCTGGCGGAGAACCGCGAGA	15977
Db	1381	TGACCGAGGTATCCCCCTGACCAGAGAGCGGAGCTGGAGCTGGCGGAGAACCGCGAGA	14440
Qy	1598	TCCTGCGGAGCCCGGTGCACGGCGTGTACTACGACCCCAAGCAAGACCTGTGGCCGAGA	16577
Db	1441	TCCTGAAGAGGCCCGGTGCACGAGGTGTACTACGACCCCAAGCAAGACCTGTGGCCGAGA	15000
Qy	1658	TCGGAAGCAGAGGCGCAGACCGATGTGACCTTACGAGTCTTACCAAGAGCCCTTCAAGAAC	17171
Db	1501	TCGGAAGCAGAGGCGCAGAGCGATGTGACCTTACGAGTCTTACCAAGAGCCCTTCAAGAAC	15600
Qy	1718	TGAAGACCGGCAAGTACCGCAAGATGTGGCACCGGCCACACCAAGACGTGAAAGACTGA	17777
Db	1551	TGAAGACCGGCAAGTACCGCCCGCATGTCCCGGCGCCACACCAAGACGTGAAAGACTGA	16220
Qy	1778	CCGAGGCCGTGCAAGAGATCGCCATGTGAGAGCATGTGTACTGTGGGCGAAGACCCCAAGT	18377
Db	1621	CCGAGGCCGTGCAAGAGGTGAGCACCCAGAGCATGTGTACTGTGGGCGAAGATCCCAAGT	16800
Qy	1838	TCGCGCTGTCCATCTCAGAAAGAGACCTGGGAGACTGTGTGGAACGACTCTGAGGAGCGCA	18977
Db	1681	TCAGAGTGTCCATCTCAGAAAGAGACCTGGGAGGCTGTGTGATGAGTACTGTGAGGCGCA	17400
Qy	1888	CCTGGATCCCGAGATGGGAGTTCTGTGAACACCCGCCCTCTGTGTGAGTGTGTGTACAGC	19577
Db	1741	CCTGGATCCCGAGATGGGAGTTGTGTGAACACCCGCCCTCTGTGTGAGTGTGTGTGTACAGC	18000
Qy	1958	TGGAGAAAGAGCCCATATCTGGCGCCGAGACCTTCTACGTGTGACGGCGCGCCCAACCGCG	20177
Db	1801	TGGAGAAAGAGCCCATCGTGGCGCGCGAGACCTTCTACGTGTGACGGCGCGCCCAACCGCG	18600
Qy	2018	AGACCAAGATGGGCAAGGCGGCTTACGGAACGACCGGAGGCGGCGAGAAATCGTGAAGC	20777
Db	1861	AGACCAAGCTGGGCAAGGCGGCTTACGTGACCGAGCGGAGCGGCGAGAAAGTGTGAGCA	19220
Qy	2078	TGACCGAGACCACCAACCAAGAGACCGAGCTGAGGCCATCAGCTGTGCGCTTGCAGAGCA	21377
Db	1921	TCGCGACACCAACCAAGAGACCGAGCTGAGGCCATCAGCTGTGCGCTTGCAGAGCA	19800
Qy	2138	GGCGCAGCGAGGTGAATCTGTGACCGACAGCAGTACGCCCTTGGGATCATCCAGGCGC	21977
Db	1981	GGCGCCTGGAAGTGAATCTGTGACCGACAGCAGTACGCCCTTGGGATCATCCAGGCGC	20400
Qy	2198	AGCCCGACAAAGCGAGCGAGCTGTGTGACCAAGATCATCGAGCAGCTGTCAAGAGAG	22577
Db	2041	AGCCCGACAAAGCGAGCGAGCTGTGTGACCAAGATCATCGAGCAGCTGTCAAGAGAG	21000
Qy	2258	AGAAAGGTATCTTAGTGTGGGTGCCCGCCCAAGAGGCGATCGGCGGCAACGACAGATCG	23177
Db	2101	AGAAAGGTATCTTAGTGTGGGTGCCCGCCCAAGAGGCGATCGGCGGCAACGACAGATCG	21600
Qy	2318	ACAAAGTGTGAACAAAGGCGATTCGCGAAGGTGCTGTTCTGTGACCGGATCGATGTGGCGCA	23777
Db	2161	ACAAAGTGTGTAGCGCGCGCATTCGCAAGGTGTGTCTTAAACGACATCATATGGCGCA	22220
Qy	2378	TCGTGATCTACAGATACATGAGACACTGTACGTGTGAGCGGCGGCGCCTTAGATTCGATT	24377
Db	2221	TCGTGATCTACAGATACATGAGACACTGTACGTGTGAGCGGCGGCGCCTTAGATTCGATT	22800
Qy	2438	AAAAGCTTCCGCGGCTTAGCACCGGTGAATTC 2469	
Db	2281	AAAAGCTTCCGCGGCTTAGCACCGGTGAATTC 2312	

RESULT 2  
US-09-475-515-82







Db	1021	AGCCCTTCCGACAGACACCCGACATCGTAGTCTAACCA-----GGCCCCCTGTACG	1074
Qy	1238	TGGGCAACGACCTTGGAGATCGGCGACGACCGCGCAAGATCGAGAGCTTGCACACACC	1297
Db	1075	TGGGCAACGACCTGTGAGATCGGCGACGACCGCAACAAAGATCGAGAGCTTGCACACACC	1134
Qy	1298	TGCTGCGTGGGGCTTCAACACCCCGCAAAAGACACCAAGAGAGGCCCTTCTCTGT	1357
Db	1135	TGCTGCGCTGGGGCTTCAACACCCCGCAAAAGACACCAAGAGAGGCCCTTCTCTGC	1194
Qy	1358	GGATTGGGCTACGAGCTGACCCCGCAAGATGAGACCGGCGAGCCCATCGAGCTCCCGGAGA	1417
Db	1195	CCAT-----CGACTGTCACCCCGACAAATGTGACCGGTGAGCCCATCATGTCTGCCGAGA	1248
Qy	1418	AGGAGAGCTGACCCGTGACGACATCCAGAGCTGTGTGGGCAAGCTTGAACTTGGGCAAGCC	1477
Db	1249	AGGACAGCTGACCCGTGACGACATCCAGAAAGCTGTGTGGGCAAGCTTGAACTTGGGCAAGCC	1308
Qy	1478	AGATCTACCCCGGCAATCAAGGTGGGCGACGCTGTGCAAGCTGTGCGCGGCGGCAAGGCCCC	1537
Db	1309	AGATCTACCGCGGCAATCAAGGTGAAAGACGCTGTGCAAGCTGTGCGCGGCGCAAGGCCCC	1368
Qy	1538	TGACCGACATGTGTGCCCTTGAACGAGGAGGCGAGCTGTGAGCTGTGCGCGCAACCCGCGAGA	1597
Db	1369	TGACCGAGGTGATCCCCCTTGACCGAGAGGCGCGAGCTGTGAGCTGTGCGCGCAACCCGCGAGA	1428
Qy	1598	TCTTGCAGGAGCCCGGTGACGCGCGGTGTACTTACGACCCCAAGACAACTTGTGTGCGGAGA	1657
Db	1429	TCCTGAAGAGCCCGGTGACGAGAGGTGTACTTCGACCCCAAGACAAAGCACTGTGTGCGGAGA	1488
Qy	1658	TCCAGAACCAAGGGCCCAACGACAGTGTGACCTTACCGAGTCTTACCAAGACCCCTTCAAGAAC	1717
Db	1489	TCAGAACCAAGGGCCCAAGGCAAGTGTGACCTTACCGAGTCTTACCAAGACCCCTTCAAGAAC	1548
Qy	1718	TGAAGACCGGCAAGTACCGCAAGATGTGCGCACCGGCCCAACCAAGCAAGTGAAGCACTGA	1777
Db	1549	TGAAGACCGGCAAGTACCGCCCGCAATGTGCGCGGCCCAACCAAGCAAGTGAAGCACTGA	1608
Qy	1778	CCGAGGCCGTGTCAAAAGATCCGCAATGTGAGACATCTGTGATCTTGGGGCAAGACCCCAAGT	1837
Db	1609	CCGAGGCCGTGTGAGAGGTGTGACACCCGAGACCATCTGTGATCTTGGGGCAAGATCCCAAGT	1668
Qy	1838	TCCGCGTGCCTTCCAGAAAGGACCTTGGGAGACCTGTGTGACCGGACTTACTGTGACGAGCA	1897
Db	1669	TCAAGCTGCCATTCAGAAAGGAGACTTGGGAGGCTGTGTGATGGAATGAGATCTGTGACGAGCA	1728
Qy	1898	CCTGATCCCGAGTGTGAGATTCTGTGAACACCCGCCCTCTGTGTGAAGCTGTGTGTACAGC	1957
Db	1729	CCTGATCCCGAGTGTGAGATTCTGTGAACACCCGCCCTCTGTGTGAAGCTGTGTGTACAGC	1788
Qy	1958	TGGAAGAGAGCCCATCATCGGCGCGCGGACCTTCTAAGTGAAGGCGCGGCAACCGCG	2017
Db	1789	TGGAAGAGAGCCCATCTGTGAGCGCGCGGACCTTCTAAGTGTGAAGGCGCGGCAACCGCG	1848
Qy	2018	AGACCAAGTCTGGCAAGCGCGGCTACGTGACCGAACCGGAGCGCGGCAAGATCTGTAGCC	2077
Db	1849	AAGCAAGTCTGGCAAGCGCGGCTACGTGACCGAACCGGAGCGCGGCAAGATCTGTAGCA	1908
Qy	2078	TGAACGAGACCAACCAAGAGACCGAGCTGTGACGAGCCATCATAGTGTGCGCTTCAAGAGCA	2137
Db	1909	TGCGCGACACCAACCAAGAGACCGAGCTGTGACGAGCCATCATCTGTGCGCTTCAAGAGCA	1968
Qy	2138	GGGGGACGAGGTGAACATCTGAGACCGACAGCCAGTACGCGCTTGGGGCAATCCAGGCGC	2197
Db	1969	GGGGGCTGGAGGTGAACATCTGTACCGACAGCCAGTACGCGCTTGGGGCAATCCAGGCGC	2028
Qy	2198	AGCCCGACAAAGCGAGACGAGCTGTGTGAACCAAGATCATGAGCACTTATCAAGAGG	2257
Db	2029	AGCCCGACAAAGCGAGACGAGCTGTGTGAACCAAGATCATGAGCACTTATCAAGAGG	2088
Qy	2258	AGAAAGTATACCTGAGCTGTGGTGCAGGCCCAAGGGACATGGGGGACCAAGCAAGCAATCG	2317

Db	2089	AGAAAGGTACTCTGGCTTGATGTCGCCGCCCAACAAGGAGCATTCGGCGGCAACGAGCAGTGG	2148
QY	2318	ACAAGCTGTGGAGCCAAAGGAGCATTCGCAAGTGTCTGTTCTTGGACGGCATTCATATGGCGCA	2377
Db	2149	ACAAGCTGTGGAGCGCGGAGCATTCGCAAGTGTCTGTTCTTGGACGGCATTCATATGGCGCA	2208
QY	2378	TCGTGATCTCAACGATCATATGGAAGACCTGTAGTGGGACGGCGGCGCTTAGATGATT	2437
Db	2209	TCGTGATCTCAACGATCATATGGAAGACCTGTAGTGGGACGGCGGCGCTTAGATGATT	2268
QY	2438	AAAGCTTCCGGGGGCTAGCACCGGTGAATTC	2469
Db	2269	AAAGCTTCCGGGGGCTAGCACCGGTGAATTC	2300
RESULT 4			
US-09-475-515-6			
; Sequence 6, Application US/09475515A			
; Patent No. 6602705			
; GENERAL INFORMATION:			
; APPLICANT: BARNETT, Susan			
; APPLICANT: ZUR MEGEDE, Jan			
; APPLICANT: SRIVASTAVA, Indresh			
; APPLICANT: LIAN, Ying			
; APPLICANT: HARTOG, Karin			
; APPLICANT: LIU, Hong			
; APPLICANT: GREER, Catherine			
; APPLICANT: SELBY, Mark			
; APPLICANT: WALKER, Christopher			
; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION			
; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION			
; FILE REFERENCE: 1621.002			
; CURRENT APPLICATION NUMBER: US/09/475,515A			
; CURRENT FILING DATE: 1999-12-30			
; NUMBER OF SEQ ID NOS: 90			
; SOFTWARE: PatentIn Ver. 2.0			
; SEQ ID NO 6			
; LENGTH: 4319			
; TYPE: DNA			
; ORGANISM: Artificial Sequence			
; FEATURE:			
; OTHER INFORMATION: Description of Artificial Sequence: synthetic			
; OTHER INFORMATION: HIV-gag-polymerase			
US-09-475-515-6			
Query Match 79.8%; Score 1969.4; DB 3; Length 4319;			
Best Local Similarity 90.1%; Pred. No. 3;le-300;			
Matches 2158; Conservative 0; Mismatches 221; Indels 16; Gaps 4;			
QY	14	TGGCCGAAGCCATGAGCGAGGCGCAACGCG---GCCAATCATCTGATGACGGCAGCAACT	70
Db	1100	TGGCCGAAGCCATGAGCGAGGCGCAACGCGCGGACCATCATATGACGGCGCAACT	1159
QY	71	TCGAAGGCGCCCAAGGCGCATCAATGATCTTCAACTGGCGGCAAGAGGGCCCATTCGCC	130
Db	1160	TCGCAACCAAGCGAAGAACCGTCAATGATCTTCAACTGGCGGCAAGAGGGCCCAACCGCA	1219
QY	131	GCAATCTCCCGCGCCCCCGCCGAAGAAGGCTCTGGAAGTGGGCGCAAGAGGGCCACAGA	190
Db	1220	GGAATCTCCCGCGCCCCCGCCGAAGAAGGCTCTGCGCGCGCGCAAGAACCAAA	1279
QY	191	TGAAGAATGTCAACGAGGCGCAGGCGCACTTCTTCGCGAAGAACTGTGCTTTCGCCAGG	250
Db	1280	TGAAGAATGTCACTAGAGACAGGCTTA-TTTTATTAGGAAGATGTGGCTTCTTACAAAG	1338
QY	251	GCAAGGCGCGCGATTTCCCGACGAGCAAAACCGCGCTCAAGGCCCCACAGCCGCAAGC	310
Db	1339	GGAAGGCGCGGGAATTTTCTTCAAGGACAGACAGAGCCCAAGGCCCAACGAAGAGAGC	1398
QY	311	TGCAGGTGGCGGCGC-----ACAACCCCGAGAGGAGGCGGCGCGGCGAGGCGCAAGGCA	364
Db	1399	TTTCAAGTTTGGGAGAGAAACAATCTCTCTCAAGAACGAGAGCGCATAGACAAAGAA	1458

QY 365 -----CCCTGAATTCCCCAGATACCTCTGTGAGGCGCCCTGTGTGATCAAGG 418  
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Db 1459 CTGTATCCCTTTAACTCCCTCAGATCACTTTTGGCAAGACCCCTCTCTCAAGTAAGA 1518  
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QY 419 TGGGCGGCAGATCAAGAGGCGCTGTGACACCGGGCGGACGACCCGTGTGAGG 478  
| | | | |  
Db 1519 TGGGCGGCAGATCAAGAGGCGCTGTGACACCGGGCGGACGACCCGTGTGAGG 1578  
| | | | |  
QY 479 AGATAGGCTGTGCGCGGAGTGGAGAGCCAGATGATCGCGGATCGCGGCTTCACTCA 538  
| | | | |  
Db 1579 AGATAGACCTGTGCGCGGAGTGGAGAGCCAGATGATCGCGGAGTGGCGGCTTCACTCA 1638  
| | | | |  
QY 539 AGGTGCGCGAGTACGACCAAGATCCCGGTGTGAGATCTGCGGCGCACAAAGGCCATCGGACCG 598  
| | | | |  
Db 1639 AGGTGCGCGAGTACGACCAAGATCCCGGTGTGAGATCTGCGGCGCACAAAGGCCATCGGACCG 1698  
| | | | |  
QY 599 TGCTGATGTGGGCGCCCGCGTGAACATCATCGGCGCGAACAATGTGTGACCGAGCTGGGCT 658  
| | | | |  
Db 1699 TGCTGTGGGCGCCCGCGTGAACATCATCGGCGCGAACAATGTGTGACCGAGATCGGCT 1758  
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QY 659 GCACCTGAATCTCCCATCAAGCCCATCGAGACCGTCCGTGAAGCTGAAGCCCGGCA 718  
| | | | |  
Db 1759 GCACCTGAATCTCCCATCAAGCCCATCGAGACCGTCCGTGAAGCTGAAGCCCGGGA 1818  
| | | | |  
QY 719 TGGAGCGCCCGAAGGTGAGCAATGCGCCCTGACCGAGAGAAAGATCAAGGCTTGAACCG 778  
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Db 1819 TGGAGCGCCCGAAGGTGAGCAATGCGCCCTGACCGAGAGAAAGATCAAGGCTTGTGAG 1878  
| | | | |  
QY 779 CCATCTGTGAGAGATGAGAGAGAGGCGGCAAGATCAAGAAATCGGCGCCGAGAAACCCCT 838  
| | | | |  
Db 1879 AGATGTGACCGAGATGAGAGAGAGGCGGCAAGATCAAGAAATCGGCGCCGAGAAACCCCT 1938  
| | | | |  
QY 839 ACAACACCCCGGTGTTCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 898  
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Db 1939 ACAACACCCCGGTGTTCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1998  
| | | | |  
QY 899 ACTTCCGGAGGTGAACAAGCGCACCCAGGACTTCTGAGAGGTGCAAGCTGTGGCATCCCC 958  
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Db 1999 ACTTCCGGAGGTGAACAAGCGCACCCAGGACTTCTGAGAGGTGCAAGCTGTGGCATCCCC 2058  
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QY 959 ACCCGCGCGCTGTGAAG 1018  
| | | | |  
Db 2059 ACCCGCGCGCTGTGAAG 2118  
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QY 1019 TCAAGGTGCGCTGTGACGAG 1078  
| | | | |  
Db 2119 TCAAGGTGCGCTGTGACGAG 2178  
| | | | |  
QY 1079 ACAACGAG 1138  
| | | | |  
Db 2179 ACAACGAG 2238  
| | | | |  
QY 1139 GCCCGAGAGATCTTCCAG 1198  
| | | | |  
Db 2239 GCCCGAGAGATCTTCCAG 2298  
| | | | |  
QY 1199 CCGAGATGATGATCTACAGATGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1258  
| | | | |  
Db 2299 CCGAGATGATGATCTACAGATGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2358  
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QY 1259 GCCAG 1318  
| | | | |  
Db 2359 GCCAG 2418  
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QY 1319 CCCCCGAG 1378  
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Db 2419 CCCCCGAG 2478  
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QY 1379 CCGAG 1438  
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Db 2479 CCGAG 2538  
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QY 1439 ACATCCAG 1498  
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Db 2539 ACATCCAG 2598  
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QY 1499 TGGCGAG 1558  
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Db 2599 TGAAG 2658  
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QY 1559 CCGAG 1618  
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Db 2659 CCGAG 2718  
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QY 1619 GCGGTACTAG 1678  
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Db 2719 AGGTGTACTAG 2778  
| | | | |  
QY 1679 AGTGAACCTACAGATGATCAAG 1738  
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Db 2779 AGTGAACCTACAGATGATCAAG 2838  
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QY 1739 AGATGCGACCGCCAGACCAAG 1798  
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Db 2839 GCATGCGCGGCGCCAGACCAAG 2898  
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QY 1799 CCATGAGAGAGATGATGATCTGTGGGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1858  
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Db 2899 GCACCGAGAGAGATGATGATCTGTGGGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2958  
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QY 1859 AGACCTGGGAG 1918  
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Db 2959 AGACCTGGGAG 3018  
| | | | |  
QY 1919 TCGTGAACACCCCGCTGTGTGAAGCTGTGTGTGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1978  
| | | | |  
Db 3019 TCGTGAACACCCCGCTGTGTGAAGCTGTGTGTGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3078  
| | | | |  
QY 1979 GCGCGGAG 2038  
| | | | |  
Db 3079 GCGCGGAG 3138  
| | | | |  
QY 2039 GCTAGTGAACGAG 2098  
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Db 3139 GCTAGTGAACGAG 3198  
| | | | |  
QY 2099 AGACCGAG 2158  
| | | | |  
Db 3199 AGACCGAG 3258  
| | | | |  
QY 2159 TGAACGAG 2218  
| | | | |  
Db 3259 TGAACGAG 3318  
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QY 2219 AGCTGTGAACAG 2278  
| | | | |  
Db 3319 AGCTGTGAACAG 3378  
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QY 2279 TGCCCGCCCAAG 2338  
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Db 3379 TGCCCGCCCAAG 3438  
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QY 2339 TCGGCAAG 2393  
| | | | |  
Db 3439 TCGGCAAG 3493  
| | | | |

RESULT 5  
US-09-393-795-12  
; Sequence 12, Application US/09393795  
; Patent No. 6958226  
; GENERAL INFORMATION:  
; APPLICANT: Gray, John T.  
; APPLICANT: Mulligan, Richard C.  
; TITLE OF INVENTION: Packaging Cell Lines  
; FILE REFERENCE: CMC693p2A

CURRENT APPLICATION NUMBER: US/09/393,795  
 CURRENT FILING DATE: 1999-09-10  
 PRIOR APPLICATION NUMBER: US 60/100,063  
 PRIOR FILING DATE: 1998-09-12  
 PRIOR APPLICATION NUMBER: US 60/100,022  
 PRIOR FILING DATE: 1998-09-11  
 NUMBER OF SEQ ID NOS: 12  
 SOFTWARE: FastSeq for Windows Version 3.0  
 SEQ ID NO 12  
 LENGTH: 8908  
 TYPE: DNA  
 ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Packaging construct pHDmnp2 comprising a codon  
 optimized form of HIV gag pol region  
 US-09-393-795-12

Query Match	78.4%;	Score 1935.8;	DB 3;	Length 8908;
Best Local Similarity	89.2%;	Pred. No. 6e-295;		
Matches 2137;	Conservative	0;	Mismatches 242;	Indels 16;
				Gaps 4;

OY	14	TGGCCGAGGCCATGACGCAAGCCACCA---GGCGCAACATCTCGATGACGAGCAACT	70
Db	2405	TGGCCGAGGCCATGTCCCAAGTCCACCAACCCGCGCACATCATATGATCAAGAGGGCACT	2464
OY	71	TCAAGGGGCCCCAAGCGCATCATCAAGTGTCTCAACTGCGGCAGAGAGGGCCACATCGCC	130
Db	2465	TCCGCAACCAAGCGCAAGACCTGTAAAGTGTCTTCAACTGCGGAGAGAGAGGGCCACTGCGCA	2524
OY	131	GCAACTGCGCGGCCCGCCCGCAAGAGGGCTGTGAAAGTGGCGCAAGAGGGGCGACCA	190
Db	2525	AGAACTGCGCGGCCCGCCCGCAAGAGGGGCTGTGAAAGTGGCGCGCAAGAGGGGCGACCA	2584
OY	191	TGAAGACTGACCGAGCGCCAGGCGCAACTCTCCCGAGAGGACTGGGCGCTTCCCGCAGG	250
Db	2585	TGAAGAATTGACTGAGAGCAAGGTAA-TTTTATTAGGAAGACTGTGGCTTCCCAAG	2643
OY	251	GCAAGGCCCGCGAGTTCCTCCAGCGAGCGAAGACCGCGCCACAGGCCCAACGCGCGAGC	310
Db	2644	GGAAGGCCAGAGGAATTTCTTCAAGACGAGACAGAGCCACAGGCCCAACGAAGAGAGC	2703
OY	311	TGCAGGTGCGGG-----GACAAACCCCGCGAGGAGGCCGCGCGCGAGCGCGCAAGGCA	364
Db	2704	TTCAAGGTTTGGGGAGAGACAACAATCCTCTCAGAAAGCAGAGCGCGATGACAAAGAA	2763
OY	365	-----CCCTGAATCTTCCCGCAAGTACACCTGTGGCAGCGGCCCTGTGTGACATCAAG	418
Db	2764	CTGTATCTTTAGCTTCCCTCAGATCACTTTTGGCAGCGACCCCTGTCTCAATTAAAGA	2823
OY	419	TGGCGCGCCAGATCAAGAGAGGCCCTGTCTGACAACCGGCGCGCAGACACCTGTCTGAGG	478
Db	2824	TCGGTGGCCAGCTGAAGAGAGGCCCTGTCTGACAACCGGCGCGCAGACACCTGTCTGAGG	2883
OY	479	AGATGAGCCTTGCGCCGCAAGTGAAGGCCCAAGATGATGTGGCGGCATTGGCGGCTTCATCA	538
Db	2884	AGATGAACCTTGCGCCGCGCTGGAAGGCCCAAGATGATGTGGCGGCATTCGCGCGCTTCATCA	2943
OY	539	AGGTGCGCCAGTACGACCAAGATCCGATTCGAGATCTGGGGCAAGAAAGGCCATTCGCGACG	598
Db	2944	AAGTCCGCGAGTACGACCAAGATCCGATTCGAGATTTGGGGCAAGAAAGGCCATTCGCGACG	3003
OY	599	TGCTGATCGGCCCAACCCCGGTGAACATCATCGGCGCGCAACATGTCTGACCCGAGCTGGGCT	658
Db	3004	TGCTGTGGGCCCCCAACCCCGGTGAACATCATCGGCGCGCAACCTGTGACCCGAGATCGGCT	3063
OY	659	GCAACCTGAATTTCCCATCAGCCCCCATGTGAGACCTGTGCCGTGAAGCTGAAGCCCGGCA	718
Db	3064	GCAACCTGAATTTCCCATCTTCCCATCTGAGACCGTGTGCCGTGAAGCTGAAGCCCGGCA	3123
OY	719	TGGAACGGCCCCAAGGAGAGAGTGGCCCCGTACCGAAGGAGAAAGATCAAGGCCCTGACG	778
Db	3124	TGGAACGGCCCCAAGGAGAGTGGCCCCCTTACCGAAGGAGAAAGATCAAGGCCCTTGTGGG	3183

OY	779	CAATTCGGAGAGGATGTGAAAGAGGGGCAAGATATCAACAAGATTCGGCCCGGAAAGCCCT	838
Db	3184	AGATCTGCACCGAGATGTGAAGAGGGGCAAGATCTTCAGAGATCGGCCCGGAAAGCCCT	3243
OY	839	ACAACACACCCCGTTCCTGCCATCAAGAAAGAGCAGACCAAGTGGCGCAAGCTGTGG	898
Db	3444	ACAACACACCCCGTTCCTGCCATCAAGAAAGAGCTCAACAAGTGGCGCAAGCTGTGG	3503
OY	899	ACTTCGGCGAGCTGAACAAGCGCACCCAGAGCTTCCTGGAGGCTGCACTGGGCAATCCCC	958
Db	3304	ACTTCGGCGAGCTGAACAAGCGCACCCAGAGCTTCCTGGAGGCTGCACTGGGCAATCCCC	3363
OY	959	ACCCCGCCGGCTGGAAAGAAAGAGCGGTACCGGTCTGGACGTGGGCGACGCTACT	1018
Db	3364	ACCCCGCCGGCTGGAAAGAAAGAGTCGTGACCGGTCTGGACGTGGGCGACGCTACT	3423
OY	1019	TCACGCTGACCCCTGGAGAGAGGACTTCCTCGCAAGTACACCGCCTTCACCATCCCGACATCA	1078
Db	3424	TCCTCCGTGACCCCTGGAGAGAGGACTTCCTCGCAAGTACACCGCCTTCACCATCCCTCATCA	3483
OY	1079	ACAAAGAGACCCCGGCATCCGCTTACCAATGACAGTACAGTGTCTGCCCCAAGGCTGGAAGGCA	1138
Db	3484	ACAAAGAGACCCCGGCATCCGGCCTTACCAAGTACAGTGTCTGCCCCAAGGCTGGAAGGCT	3543
OY	1139	GCCCCAGATTTTCCAGAGCAGCAATGACAAAGATCTGTGAGCCCTTCGCGCGCCGCAAC	1198
Db	3544	CCCCCGCATTTTCCAGGCTTCATGACCAAGATCTGTGAGCCCTTCGCGCAAGCAAGAAC	3603
OY	1199	CCGAGATCGTATCTAACCAATACATGTAGCGACCTGTACGTGGAGCAGCGACTTGAGATCG	1258
Db	3604	CCGACATGTATCTTACCAATACATGTAGCGACCTGTACGTGGAGCTCGACCTTGAGATCG	3663
OY	1259	GCCAGCACCGCGCCAAAGTGCAGAGAGCTGCGCAAGCACCTGCTGGCTGGGGCTTCACCA	1318
Db	3664	GCCAGCACCGGCACCAAGTGCAGAGAGCTGCGCCAGCACCTGCTGGCTGGGGCTTCACCA	3723
OY	1319	CCCCCGAACAAGACACCAAGAAAGAGCCCCCTTCTGTGATGGGGCTACGAGCTGCAC	1378
Db	3724	CCCCCGAACAAGAAAGACCAAGAAAGAGCCCCCTTCTGTGATGGGGCTTACGAGCTGCAC	3783
OY	1379	CCGACAAATGAGCCGTGACGCCCATCTGACCTGCCAGAAAGAGAGTGCAGCCGTGAACG	1438
Db	3784	CCGACAAATGAGCCGTGACGCCCATCTGTGCTGCCAGAAAGAGACTGTGAACCGTGAACG	3843
OY	1439	ACATTCAGAAAGCTGTGGGCAAGCTGAATCTGGGCCAGCCAGATTTACCCCGGCATCAAGG	1498
Db	3844	ACATTCAGAAAGCTGTGTGGCAAGCTGAATCTGGGCTCTCCCAATCTACCCCGGCATCAAGG	3903
OY	1499	TGCGCCAGCTGTGCAAGCTGTCTGCGCGCGCCAGAGCCCTGACCGACATTCGTGGCCCTGA	1558
Db	3904	TCCGCGCACTGTGCAAGCTGTCTGCGCGCCAGACCAAGGCCCTTACCCAGGTGTGGCCCTGA	3963
OY	1559	CCGAGAGAGCGAGCTGGAGCTGGCCAGAAACCGCGAGATCTTGCGCGAGGCCCGTGCAG	1618
Db	3964	CCGAGAGAGCGAGCTGGAGCTGGCCAGAAACCGCGAGATCTTGAGAGAGGCCCGTGCAG	4023
OY	1619	GCGTGTACTTACGACCCCGACAGAGGACTGTGTGGCCGAGATCTCAGAAAGCAAGGCCCAAGAC	1678
Db	4024	GCGTGTACTTACGACCCCTTCAAGAGACTGTGTGCCAGATCTCAGAAAGCAAGGCCCAAGAC	4083
OY	1679	AGTGAACCTTACCAATTTTACCGAGAGCCCTTCAACAACCTGTAAGACCGGCAAGTACGCGCA	1738
Db	4084	AGTGAACCTTACCAAGTTTACCGAGAGCCCTTCAACAACCTGTAAGACCGGCAAAATTCGCGC	4143
OY	1739	AGATGCGCACCGCCCAACAACAAGAGCTGAAGCACTGACCGAGGCCGTGCAAGAGATCG	1798
Db	4144	GCAATGAAGGGCCCAACAACAAGAGCTGAAGCACTGACCGAGGCCGTGCAAGAGATCG	4203
OY	1799	CCATGAGAGCATCTGTATCTGGGGCAAGACCCCAAGTTCCGCTTGCCATCTCAAGAGG	1858
Db	4204	CCACCGAGTCCATCTGTATCTGGGGCAAGACTCCCAAGTTCAAGCTGCGCCATCTCAAGAGG	4263
OY	1859	AGACTCTGGAGAGCTGTGTGAGACCAATCTGTGCAAGGCCACCTGTATCCCGAGTGGAGT	1918

Db 4264 AGACCTGGAGGCTCTGTGAGCCGAGTACCTGGACAGGCCACTGTGATCCCGAGTGGAGT 4323  
Qy 1919 TGTGTAACACCCCTCCCTGTGTAACTGTGTACCACTGTGAGAGAGCCCATCATCG 1978  
Db 4324 TGTGTAACACCCCTCCCTGTGTAACTGTGTACCACTGTGAGAGAGCCCATCATCG 4383  
Qy 1979 GGGCGGAGACCTTCTGAGTGAACGGCGCGCCCAACCGGAGAGCCAAAGATCGGCAAGGCG 2038  
Db 4384 GGGCGGAGACCTTCTGAGTGAACGGCGCGCCCAACCGGAGAGCCAAAGATCGGCAAGGCG 4443  
Qy 2039 GCTACGTGACCGACCGGCGCGCCCAAGATCTGTAGCTGTACCGAGACCAACCAACAGA 2098  
Db 4444 GCTACGTGACCGACCGGCGCGCCCAAGATCTGTAGCTGTACCGAGACCAACCAACAGA 4503  
Qy 2099 AGACCGAGCTGACGAGCCATCCAGCTGTGCTGTGAGAGACAGCGGACGAGGTGAACATCG 2158  
Db 4504 AGACCGAGCTGACGAGCCATCCAGCTGTGCTGTGAGAGACCTCGGCTGTGAGGTGAACATCG 4563  
Qy 2159 TGAACGAGAGCGACGACCGCTGTGAGCATCATCAGGCCCAAGCCGACCAAGAGCGAGAGCG 2218  
Db 4564 TGAACGAGCTCCAGATGATGATGGGATCATCATCAGGCCCAAGCCGACCAAGTCCAGTCCG 4623  
Qy 2219 AGCTGTGTAACCAATCATTCAGACGCTGATCAAGAGAGAGAGGTGTACTGTAGCTGG 2278  
Db 4624 AGCTGTGTCCAGATCATTCAGACGCTGATCAAGAGAGAGAGGTGTACTGTAGCTGG 4683  
Qy 2279 TGCCGCGCCCAAGGCGCATTCGGCGGCAACAGACAGATGACAGAGCTGTGTAGCAAGGCA 2338  
Db 4684 TGCCGCGCCCAAGGCGCATTCGGCGGCAACAGACAGATGACAGAGCTGTGTGTCCGCGCA 4743  
Qy 2339 TCCGCAAGTGTCTGTCTGTGAGCGGCGATCGATGGGCGATGTGTACTGACAGTA 2393  
Db 4744 TCCGCAAGTGTCTGTCTGTGAGCGGCGATCGAGCGCCAGAGAGACACAGAA 4798

RESULT 6  
US-09-475-515-80  
Sequence 80, Application US/09475515A  
Patent No. 6602705  
GENERAL INFORMATION:  
APPLICANT: BARNETT, Susan  
APPLICANT: ZUR MEGEDE, Jan  
APPLICANT: SRIVASTAVA, Indresh  
APPLICANT: LIAN, Ying  
APPLICANT: HARTOG, Karin  
APPLICANT: LIU, Hong  
APPLICANT: GRBER, Catherine  
APPLICANT: SELBY, Mark  
APPLICANT: WALKER, Christopher  
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION  
FILE REFERENCE: 1621.002  
CURRENT APPLICATION NUMBER: US/09/475,515A  
CURRENT FILING DATE: 1999-12-30  
NUMBER OF SEQ ID NOS: 90  
SOFTWARE: Patent In Ver. 2.0  
SEQ ID NO 80  
LENGTH: 2305  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence:  
US-09-475-515-80

Query Match 75.3%; Score 1958; DB 3; Length 2305;  
Best Local Similarity 89.0%; Pred. No. 8, 6e-283;  
Matches 2058; Conservative 0; Mismatches 233; Indels 19; Gaps 4;  
Qy 170 GCGGCAAGAGGCGCCAGATGAAGACTGACCGAGCGCCAGCACTTCTTCCGCG 229  
Db 1 GCGGCGGAGAGACACCAATGAAAGATTGCACTGAGAGACAGGCTAATTTT-AGGG 59

Qy 230 AGACCTGGAGCTTCCCGAGGCGCAAGCGCGAGTTCCTCCAGCGAGAGAACCGGCCA 289  
Db 60 AAGATCTGGCTTCTCTACAGAGGAAAGCCAGAGAAATTTTCTTCAGAGCAGACAGGCCA 119  
Qy 290 ACAAGCCCAACAGCGCGAGCTGAGGTGCGCGG-----ACAAGCCCGCAGCGAGG 343  
Db 120 ACAAGCCCAACAGAGAGAGCTTCAGGTTTGGGAGAGAAACAATCTCTCAGAAAG 179  
Qy 344 CCGGCGCGAGCGCAGGCA-----CCCTGAATCTTCCCGAATCACTCTGTGGAGC 397  
Db 180 CAGAGCGGATGACAGAGAACTGTATCTTTAATCTTCCATCAATCACTTTGGCAAC 239  
Qy 398 GCCCTGTGTAGATCAAGGTGCGCGCCAGATCAAGAGAGCCCTGTGTGACACCGCG 457  
Db 240 GACCTCTGTCAATTAAGATCGGGGGGCACTCAAGAGAGCCCTGTGTCAATCAGAG 299  
Qy 458 CCGACACACCGTCTGAGAGATGAGCTTCCCGCAAGTGAAGCCCAAGATGATCG 517  
Db 300 CAGATGATACAGTATTGAAAGAAATGAAATTTGCCAGGAAATGAAACCAAAATGATAG 359  
Qy 518 GCGGATCGGCGGCTTATCAAGGTGCGCCAGTACAGACCAATCTGTATCGAGTCTGCG 577  
Db 360 GGGGATCGGGGCTTCAATCAAGGTGAGGCGTACAGACAGATACCTGTAGAAATCTGTG 419  
Qy 578 GCAAGAGGCGCATCGGCAACGCTGTGATCGGCCCCACCCCGTGAACATCATCGGCGCA 637  
Db 420 GACATTAAGCTATAGTACAGTATTAAGTGAACCTACCTGTCAACATTAATGGAGAA 479  
Qy 638 ACATGTGACCCAGCTGCGCTGACACCTTGAATCTTCCCATGAGCCCATGAGACCGTGC 697  
Db 480 ATCTGTGACCCAGATCGGCTGACACCTTGAATCTTCCCATGAGCCCATGAGACCGTGC 539  
Qy 698 CCGTGAAGCTGAAGCCCGGCGATGACCGGCCCCAAGTGAACAGATGCGCCCTGACCGAG 757  
Db 540 CCGTGAAGTGAAGCCCGGCGATGACCGGCCCCAAGTGAACAGATGCGCCCTGACCGAG 599  
Qy 758 AGAAGATCAAGGCGCTGACCGCATCTGCGAGAGATGAGAGAGAGGCGCAAGATCAACA 817  
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Qy 818 AGATCGGCGCGGAGAACCCCTACAAACACCCCGTGTCCCATCAAGAGAGAGCAGCA 877  
Db 660 AGATCGGCGCGGAGAACCCCTACAAACACCCCGTGTCCCATCAAGAGAGAGCAGCA 719  
Qy 878 CCAAGTGGCGGAAGCTGTGTGACTTCCGCGAGCTGAACAGCGCACCAAGACTTCTGGG 937  
Db 720 CCAAGTGGCGGAAGCTGTGTGACTTCCGCGAGCTGAACAGCGCACCAAGACTTCTGGG 779  
Qy 938 AGGTGAGCTGGGATCCCCACCCCGCGGCTGAAGAGAGAGAGAGCGTGAACCGTGC 997  
Db 780 AGGTGAGCTGGGATCCCCACCCCGCGGCTGAAGAGAGAGAGAGAGCGTGAACCGTGC 839  
Qy 998 TGAAGTGGGAGAGCGCTTACCTTACGCTGCTGTGAGAGAGACTTCCGCAAGTACACCG 1057  
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Qy 1058 CTTTCAACATTCCTCCAGCATCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1117  
Db 900 CTTTCAACATTCCTCCAGCATCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 959  
Qy 1118 TGCCCGAGGCTGGAAGGAG 1177  
Db 960 TGCCCGAGGCTGGAAGGAG 1019  
Qy 1178 AGCCCTTCCGCGCGCGCAACCCCGAGATCGTATCTTCAAGAGAGAGAGAGAGAGAGAG 1237  
Db 1020 AGCCCTTCCGAG 1073  
Qy 1238 TGGGAG 1297  
Db 1074 TGGGAG 1133



QY 1298 TGCTGCTGGGGCTTCAACACCCCGACAAAGACACAGAGAGCCCTTCTCTGT 1357  
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 DB 1194 GGAATGGCTTACGAGCTGACACCCCGACAAAGTGAACCTGTCAAGCCCTTCAAGCTGGCCGAGA 1253  
 QY 1418 AGGAGAGCTGACCGTGAACGACATCCAGAGCTGTGGGCAAGCTGAATGGGCCAGGC 1477  
 DB 1254 AGGAGAGCTGACCGTGAACGACATCCAGAGCTGTGGGCAAGCTGAATGGGCCAGGC 1313  
 QY 1478 AGATCTACCCCGGACATCAAGGTGCGCCAGCTGTGCAAGCTGTGCGCGGCGCAAGGCC 1537  
 DB 1314 AGATCTACCCCGGACATCAAGGTGCGCCAGCTGTGCAAGCTGTGCGCGGCGCAAGGCC 1373  
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 DB 1374 TGAACCAATCTGTGCTGCTGACACCGAGAGAGCCGACCTGAGCTGGCCGAGAACCCGCGAGA 1433  
 QY 1598 TCCCTGCGAGCGCCGTCGACCGCGGCTGTAACGACCCCGACAAAGACCTGTGGCCGAGA 1657  
 DB 1434 TCCCTGAGAGCGCCGTCGACCGAGGTGTACTACGACCCCGACAAAGACCTGTGGCCGAGA 1493  
 QY 1658 TCCAGAGAGCGGCGACGACGAGTGAACCTTACAGATCTTACGAGAGCCCTTCAAGAAC 1717  
 DB 1494 TCCAGAGAGCGGCGACGAGGCGCGAGTGAACCTTACAGATCTTACGAGAGCCCTTCAAGAAC 1553  
 QY 1718 TGAAGACCGGCGAGTACCGCAAGATGCGACCGGCCACCAACGACGTAAGAGCACTGA 1777  
 DB 1554 TGAAGACCGGCGAGTACCGCAAGATGCGACCGGCCACCAACGACGTAAGAGCACTGA 1613  
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 DB 1614 CGAGGCGCTGAGAGATGCGCATGAGAGATGTAATCTGGGCGACAGCCCGCAAT 1673  
 QY 1838 TCCGCTGCGCATTCAGAGAGAGACCTGGGAGACCTGTGAGACCGACTTACTGGCAGGCCA 1897  
 DB 1674 TCCGCTGCGCATTCAGAGAGAGACCTGGGAGACCTGTGAGATGAGATCTGGCAGGCCA 1733  
 QY 1898 CCTGATCCCGAGTGGAGTCTGTGAACAACCCCCCTGTGTGAGTGTGTACCAAC 1957  
 DB 1734 CCTGATCCCGAGTGGAGTCTGTGAACAACCCCCCTGTGTGAGTGTGTACCAAC 1793  
 QY 1958 TGAAGAGAGAGCCATCTGCGCGCGAGACCTTCAAGTGAACGCGCGCGCAACCGCG 2017  
 DB 1794 TGAAGAGAGAGCCATCTGCGCGCGAGACCTTCAAGTGAACGCGCGCGCAACCGCG 1853  
 QY 2018 AGACCAAGATCGGCAAGCGCGCTACGTGACCGACCGGCGCGCGAGAGATCTGAGCC 2077  
 DB 1854 AGACCAAGATCGGCAAGCGCGCTACGTGACCGACCGGCGCGCGAGAGATCTGAGCA 1913  
 QY 2078 TGAACGAGACCAACCAACAGAGACCGAGCTGAGGCGCATCTGCGCCCTGCGAGACA 2137  
 DB 1914 TGCCTGACACCAACCAACAGAGACCGAGCTGAGGCGCATCTGCGCCCTGCGAGACA 1973  
 QY 2138 GCGGCGACGAGGTGAACATCTGTGACCGACGCGAGTACCGCTGTGGGCAATCATCAAGGCC 2197  
 DB 1974 GCGGCGCTGAGGTGAACATCTGTGACCGACGCGAGTACCGCTGTGGGCAATCATCAAGGCC 2033  
 QY 2198 AGCCCGACAAAGAGCGAGGAGCTGTGAACGAGATCATCGAGACGCTGATCAAGAGG 2257  
 DB 2034 AGCCCGACAAAGAGCGAGGAGCTGTGTGACGAGTCAATCGAGACGCTGATCAAGAGG 2093  
 QY 2258 AGAAGGTGTACTGAGCTGGGTGCCGCCCAAGAGGCGATCGCGCGCAAGCAATGCG 2317  
 DB 2094 AGAAGGTGTACTGAGCTGGGTGCCGCCCAAGAGGCGATCGCGCGCAAGCAATGCG 2153  
 QY 2318 ACAAGCTGTGAGCAAGGGGCAATCGCAAGTGTCTTCTGTGACCGGATGAGTGGCGGCA 2377  
 DB 2154 ACAAGCTGTGAGCGCGGCAATCGCAAGTGTCTTCTGTGACCGGATGAGTGGCGGCA 2213  
 QY 2378 TCGTGAATCTACAGTACATGAGACGACTGTACGTTGGCGACGCGCGCCCTTACGATGAT 2437

DB 2214 TCGTGAATCTACAGTACATGAGACGACTGTACGTGGGAGGCGCCCTGAGATGAT 2273  
 QY 2438 AAAAGCTTCCCGGGCTTACGACCCGCTGATTC 2469  
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 RESULT 7  
 US-09-475-515-81  
 ; Sequence 81, Application US/09475515A  
 ; Patent No. 6602705  
 ; GENERAL INFORMATION:  
 ; APPLICANT: BARNETT, Susan  
 ; APPLICANT: ZUR MEGEDE, Jan  
 ; APPLICANT: SRIVASTAVA, Indresh  
 ; APPLICANT: LIAN, Ying  
 ; APPLICANT: HARTOG, Karln  
 ; APPLICANT: LIU, Hong  
 ; APPLICANT: GREER, Catherine  
 ; APPLICANT: SELBY, Mark  
 ; APPLICANT: WALKER, Christopher  
 ; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION  
 ; TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES  
 ; FILE REFERENCE: 1621.002  
 ; CURRENT APPLICATION NUMBER: US/09/475,515A  
 ; CURRENT FILING DATE: 1999-12-30  
 ; NUMBER OF SEQ ID NOS: 90  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 81  
 ; LENGTH: 2299  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence:  
 ; US-09-475-515-81  
 Query Match 74.2%; Score 1831.2; DB 3; Length 2299;  
 Best Local Similarity 88.6%; Pred. No. 1.4e-278;  
 Matches 2049; Conservative 0; Mismatches 238; Indels 25; Gaps 5;  
 QY 170 GCGGCAAGAGGGCCACCAAGTGAAGATGTGACCGAGGCCAGGCGCACTTCCGCG 229  
 DB 1 GCGGCGCGCAAGAGCAACCAATGAAGATGTGACGAGAGCGCTAATTTT-AGG 59  
 QY 230 AGGACCTGGCTTCCCGGAGGCGCGCGAGTTCCTCAAGCGACGAACCGCGCCA 289  
 DB 60 AGATCTGCTCTTCTACAGAGGAGCGCGGAAATTTCTTCAAGCGACGACAGGCCA 119  
 QY 290 ACAGCCCAACAGCCGCGAGCTGCAAGTGCAGGCG-----ACAACCCCGCAGCGAG 343  
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 QY 344 CCGGCGCGAGCGCGCGCA-----CCCTGAATTTCCCGCAGATCACTTGTGCAAG 397  
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 QY 398 GCGGCTGTGAGATCAAGTGTGGGCGCAATCAAGAGGCGCTGTGACACCGCGCG 457  
 DB 240 GACCCCTGTCAAAATGAAGATGCGGCGGCGACTCAAGAGAGGCTGTGATCAGAG 299  
 QY 458 CCGACGACCGGTGCTGAGAGATGAGCTGCGCGCGCAAGTGAAGCCCAAGATGATCG 517  
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 DB 360 GGGGATTCGGGGCTTCAATCAAGTGAAGGCAAGTACCAAGATCTGATGATCTGCG 419  
 QY 578 GCAAGAGCGCATCGGCAACGCTGTGATGCGGCCCAACCCCGTGAACATCATGCGCGCA 637  
 DB 420 GACATAAGCTATAGGTACGATTTAGTAGACCTTACCTGTCAACATAATTGGAAGAA 479

QY 638 ACATGCTGACCCAGCTGGGCTGACACCTGAACTTCCCATGAGCCCATCGAACCGTGC 697  
 Db 480 ATCTGTTGACCCAGATGGGCTGCACTTGAACCTTCCCATGAGCCCATTTGAGACGGTGC 539  
 QY 698 CCGTGAAGCTGAAGCCCGGACATGAGCGGCCCAAGGTGAAGCATGAGCCCTGACCGAGG 757  
 Db 540 CCGTGAAGTTGAAGCCCGGAGATGAGCGGCCCAAGGTGAAGCATGAGCCATTTGACCGAGG 599  
 QY 758 AGAAGATGAAGCCCTGACCCGCACTTGGGAGAGATGGAAGAGAGGGCAAGATCAACA 817  
 Db 600 AGAAGATGAAGCCCTGATGAGATCTGACCGAGATGGAAGAGAGGGCAAGATCAACA 659  
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 Db 660 AGATCGGCCCGGAGAACCCCTTACAAACACCCCGTGTGGCATCAAGAGAGAGACACA 719  
 QY 878 CCAAGTGGCGCAAGCTGTGGACTTCCGCGAGCTGAACAGCGCACCCAGGACTTCTGGG 937  
 Db 720 CCAAGTGGCGCAAGCTGTGGACTTCCGCGAGCTGAACAGCGCACCCAGGACTTCTGGG 779  
 QY 938 AGGTGACGCTGGGCACTCCCGACCCCGCGCGCTGAAGAGAGAGCGGTGACCGTGC 997  
 Db 780 AGGTGACGCTGGGCACTCCCGACCCCGCGCGCTGAAGAGAGAGCGGTGACCGTGC 839  
 QY 998 TGAACGTGGGCGACGCTACTTCAAGCGTGCCTTGAACGAGGACTTCCGCAAGTACACG 1057  
 Db 840 TGAACGTGGGCGACGCTACTTCAAGCGTGCCTTGAACGAGGACTTCCGCAAGTACACG 899  
 QY 1058 CTTTACCATCCCGACGATCAACAAAGAACCCCGGACATCCGCTACCAAGTACAAAGTGC 1117  
 Db 900 CTTTACCATCCCGACGATCAACAAAGAACCCCGGACATCCGCTACCAAGTACAAAGTGC 959  
 QY 1118 TGCCCCAGGGGCTGAAGGGGAGCCCCAGCATCTTCAAGAGAGATGAACCAAGATCCGCG 1177  
 Db 960 TGCCCCAGGGGCTGAAGGGGAGCCCCAGCATCTTCAAGAGAGATGAACCAAGATCCGCG 1019  
 QY 1178 AGCCCTTCCGGGCGCCGACCCCGAGATCGTGAATCAAGTACATGAGACGATGTAAG 1237  
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 QY 1238 TGGGACGAGCACTTGAAGATCGGCGACGACCCGCGCAAGATGAGAGGCTGCGCAAGCAC 1297  
 Db 1074 TGGGACGAGCACTTGAAGATCGGCGACGACCCGCGCAAGATGAGAGGCTGCGCGACGAC 1133  
 QY 1298 TGCTGCGCTGGGGGCTTCAACACCCCGACAAAGACCAAGAGAGAGGCCCCCTTCTGT 1357  
 Db 1134 TGCTGCGCTGGGGGCTTCAACACCCCGACAAAGACCAAGAGAGAGGCCCCCTTCTGT 1193  
 QY 1358 GGAATGGGCTACGAGCTGACCCCGACAAAGTGAACCTGACGCCATCGAGCTGCCGAGA 1417  
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 QY 1418 AGAAGAGCTGACCGTGAACGATCAAGAACTGTGGGCAAGCTGAATGGGGCAGCC 1477  
 Db 1248 AGAAGAGCTGACCGTGAACGATCAAGAACTGTGGGCAAGCTGAATGGGGCAGCC 1307  
 QY 1478 AGATTAACCCCGGACATCAAGGTGCGCGCTGTGAAGCTCTGCGCGCGCGCAAGGCC 1537  
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 QY 1538 TGAACGACATCGTGCCTTGAACCGAGAGGCGGAGCTGAGACTGCGACGAGACCGGAGA 1597  
 Db 1368 TGAACGACATCGTGCCTTGAACCGAGAGGCGGAGCTGAGACTGCGACGAGACCGGAGA 1427  
 QY 1598 TCTTCGCGGAGCCGCTGACCGGCGTGTACTAGACCCCGACGAGAGACTGTGCGCGAGA 1657  
 Db 1428 TCTTCGAGAGAGCCCGCTGACGAGGTGTACTAGACCCCGACGAGAGACTGTGCGCGAGA 1487  
 QY 1658 TCCGAGAACGAGGCGACGAGCTGAGACTTACAGATTTACAGAGAGCCCTTCAAGAAC 1717  
 Db 1488 TCCGAGAACGAGGCGACGAGCTGAGACTTACAGATTTACAGAGAGCCCTTCAAGAAC 1547

QY 1718 TGAAGACCGGACAGTACGCCAGATGCGCACCGGCCACACCAACGACGTGAAGCACTGA 1777  
 Db 1548 TGAAGACCGGACAGTACGCCAGCTGCGCGCGGCCACACCAACGACGTGAAGCACTGA 1607  
 QY 1778 CCGAGGCGGTGACAAAGATGCGCATTGAAGACATCGTGAATTTGGGGCAAGACCCCAAGT 1837  
 Db 1608 CCGAGGCGGTGACAAAGATGAGACCGAGAGACATGTGATTTGGGGCAAGATCCCAAGT 1667  
 QY 1838 TCCGCTGACCATCGAGAGAGAGACTGGGAGACCTGTGTGAGACCGACTGAGAGGCA 1897  
 Db 1668 TGAAGCTGCCATCGAAGAGAGACCTGGAGGCGCTGTGATGAGAGTCTGAGAGGCA 1727  
 QY 1898 CTTGATCCCGAGTGGAGATTGTGTAAACACCCCGCTGTGTGAAGCTGTGTACAGC 1957  
 Db 1728 CTTGATCCCGAGTGGAGATTGTGTAAACACCCCGCTGTGTGAAGCTGTGTACAGC 1787  
 QY 1958 TGAAGAGAGCCCATCATCGGCGCCGAGACCTTCTAAGTGAAGAGGCGCGCCCAACGCG 2017  
 Db 1788 TGAAGAGAGCCCATCATCGTGGCGCGCGAGACCTTCTAAGTGAAGAGGCGCGCCCAACGCG 1847  
 QY 2018 AGACCAAGATCGGACAGGCGCGCTAGCTGACCGACCGGCGCGGACAGAGATCGTGAAGC 2077  
 Db 1848 AGACCAAGCTGGGACAGGCGCGCTAGCTGACCGACCGGCGCGGACAGAGTGGTGAAGCA 1907  
 QY 2078 TGACCGAGACCAACCAAGAGACCGAGCTGACAGGCCATTCAGCTGGCCCTGACAGACA 2137  
 Db 1908 TGCCGACACCAACCAAGAGACCGAGCTGACAGGCCATTCAGCTGGCCCTGACAGACA 1967  
 QY 2138 GCGGACAGAGTGAATCATCTGTGACCGACAGCGATACGCCCTGTGGGATCATTCAGAGGCC 2197  
 Db 1968 GCGGCTGGAGTGAATCATCTGTGACCGACAGCGATACGCCCTGTGGGATCATTCAGAGGCC 2027  
 QY 2198 AGCCGACAAAGAGGAGAGCGAGCTGTGAACAGATCATCGACAGCTGATCAAGAGG 2257  
 Db 2028 AGCCGACAAAGAGGAGAGCGAGCTGTGAACAGATCATCGACAGCTGATCAAGAGG 2087  
 QY 2258 AGAAGGTGTACTGAGCTGGGTGCGCCCGCAAGGGCATGCGCGGCAACGAGCAGATCG 2317  
 Db 2088 AGAAGGTGTACTGAGCTGGGTGCGCCCGCAAGGGCATGCGCGGCAACGAGCAGATCG 2147  
 QY 2318 ACAAGCTGTGAGCAAGGGCATTCGCAAGGTGTCTGTGGAAGGCAATTCGATGGCGGCA 2377  
 Db 2148 ACAAGCTGTGAGCAAGGGCATTCGCAAGGTGTCTGTGGAAGGCAATTCGATGGCGGCA 2207  
 QY 2378 TCGTGAATCAACAGTACATGAGACGACCTGTGAGGCGAGGCGGCGCTAGATTCGATT 2437  
 Db 2208 TCGTGAATCAACAGTACATGAGACGACCTGTGAGGCGAGGCGGCGCTAGATTCGATT 2267  
 QY 2438 AAAAGCTTCCGGGGCTAGACACCGGTGAATTTC 2469  
 Db 2268 AAAAGCTTCCGGGGCTAGACACCGGTGAATTTC 2299

RESULT 8  
 US-09-393-795-10  
 ; Sequence 10, Application US/09393795  
 ; Patent No. 6958226  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Gray, John T.  
 ; APPLICANT: Mulligan, Richard C.  
 ; TITLE OF INVENTION: Packaging Cell Lines  
 ; FILE REFERENCE: CMC693p2A  
 ; CURRENT APPLICATION NUMBER: US/09/393,795  
 ; CURRENT FILING DATE: 1999-09-10  
 ; PRIOR APPLICATION NUMBER: US 60/100,063  
 ; PRIOR FILING DATE: 1998-09-12  
 ; PRIOR APPLICATION NUMBER: US 60/100,022  
 ; PRIOR FILING DATE: 1998-09-11  
 ; NUMBER OF SEQ ID NOS: 12  
 ; SOFTWARE: FastSeq for Windows Version 3.0  
 ; SEQ ID NO 10  
 ; LENGTH: 3012  
 ; TYPE: DNA



ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Codon optimized form of HIV pol coding region  
 FEATURE:  
 NAME/KEY: CDS  
 LOCATION: (1)...(3012)  
 US-09-393-795-10

Query Match 73.5%; Score 1815.6; DB 3; Length 3012;  
 Best Local Similarity 90.1%; Pred. No. 3,9e-276;  
 Matches 1970; Conservative 0; Mismatches 204; Indels 12; Gaps 2;

QY 220 TTCTTCGCGAGGAGCTGGGCTTCCCTCCAGGCGCAAGGCCCGGAGTTCCCAAGAGCAG 279  
 DB 1 TTTTATAGGAGATCTGGCTTCCCAAGAGGAGGCAAGGAAATTTCTTCAGAGAG 60  
 QY 280 AACCGCCGCAACACCCCAACAGCCGAGAGCTGAGAGTGGCGG-----GCAACCCC 333  
 DB 61 ACCAGAGCCACACCCCAACAGAGAGCTTCAAGTTTGGGAGAGAGACACACTCC 120  
 QY 334 CGCAGCAGGCGCGCGCGAGCGCCAGGGCA-----CCCTGAACTTCCCTCCAGATCAC 387  
 DB 121 CTCTCAGAGAGAGAGAGCGGATGACAGAGAACTGTATCTTTAGCTTCCCTCAATCACT 180  
 QY 388 CTGTGGCAGCGCCCTCTGTGATCAAGGTGGCGGCGCAGATCAAGAGGCTTGTCTG 447  
 DB 181 CTTTGGCAGCGACCCCTGTCACAATTAAGATCGGTGGCCAGCTGAGAGAGGCTGTCTG 240  
 QY 448 GACACCGCGCGCGAGAGACCTGTGTGAGAGAGATGAACTGCGCGAGAGAGTGGAGGCC 507  
 DB 241 GACACCGCGCGCGAGAGACCTGTGTGAGAGAGATGAACTGCGCGCGAGAGAGGCC 300  
 QY 508 AAGATGATCGGCGGATGCGCGCTTCAATCAAGTGGCCAGTACAGACAGATCTGTATC 567  
 DB 301 AAGATGATCGGCGGATGCGCGCTTCAATCAAGTGGCCAGTACAGACAGATCTGTATC 360  
 QY 568 GAGATCTGCGGAGAGAGGCGCATCGGCAACCGTGTGATGCGGCCCAACCCCGGTGAATC 627  
 DB 361 GAGATCTGCGGAGAGAGGCGCATCGGCAACCGTGTGATGCGGCCCAACCCCGGTGAATC 420  
 QY 628 ATCGCGCGGAGATCTGTGACCTGAGTGGCTGCAACCTGAACTTCCCAATCAAGCCCATC 687  
 DB 421 ATCGCGCGGAGATCTGTGACCTGAGTGGCTGCAACCTGAACTTCCCAATCTCCCATC 480  
 QY 688 GAGACCGTGGCGGTGAAGCTGAAGCCCGGCGATGAGCGGCGCAAGGTGAAGAGTGGCC 747  
 DB 481 GAGACCGTGGCGGTGAAGCTGAAGCCCGGCGATGAGCGGCGCAAGGTGAAGAGTGGCC 540  
 QY 748 CTGACCGAGAGAGATCAAGGCCCTGACCGGCATCTGCGAGAGAGTGAAGAGAGGCG 807  
 DB 541 CTGACCGAGAGAGATCAAGGCCCTGAGTGGAGATCTGCAACGAGTGAAGAGAGGCG 600  
 QY 808 AAGATCAACAGATGGGCCCGAGAAACCTCTACAAACCCCGTGTTCGCCATCAAGAG 867  
 DB 601 AAGATCTCCAAATGGGCCCGAGAAACCTCTACAAACCCCGTGTTCGCCATCAAGAG 660  
 QY 868 AAGGACAGCAAGTGGGCGCAAGCTGATGAGCTTCCGAGAGTGAACAAGGCGACCGAG 927  
 DB 661 AAGGACAGCAAGTGGGCGCAAGCTGATGAGCTTCCGAGAGTGAACAAGGCGACCGAG 720  
 QY 928 GACTTCTGGAGAGTGAAGCTGGGCAATCCCAACCCCGCGGCTGAAAGAGAGAGAGC 987  
 DB 721 GACTTCTGGAGAGTGAAGCTGGGCAATCCCAACCCCGCGGCTGAAAGAGAGAGTGC 780  
 QY 988 GTGACCGTGTGAGAGTGGGCGAGCGCTTCAAGGTGCGCTGAGAGAGAGAGAGCTTCCGC 1047  
 DB 781 GTGACCGTGTGAGAGTGGGCGAGCGCTTCAAGGTGCGCTGAGAGAGAGAGAGCTTCCGC 840  
 QY 1048 AAGTACACCGGCTTCAATCCCAAGATCAACAGAGAGCCCGCGGATCTCGCTACAG 1107  
 DB 841 AAGTACACCGGCTTCAATCCCAAGATCAACAGAGAGCCCGCGGATCTCGCTACAG 900  
 QY 1108 TACAACTGTGCGCCAGAGGCTGAAAGGCGACCCCAAGCATTTTCAAGAGCAGATGACC 1167

DB 901 TACAACTGTGCGCCAGAGGCTGAAAGGCGCTCCCGGCATCTTCCAGTCTCCATGACC 960  
 QY 1168 AAGATCTGAGAGCTTCCGCGCCCGGACACCCCGAGATTCGTGATCTACAGTACAGAGAC 1227  
 DB 961 AAGATCTGAGAGCTTCCGCGCCCGGACACCCCGAGATTCGTGATCTACAGTACAGAGAC 1020  
 QY 1228 GACTGTAAGTGGGCGAGCGACTGAGATGGGCGAGAGCGGCGCAAGATCAAGAGCTG 1287  
 DB 1021 GACTGTAAGTGGGCGAGCGACTGAGATGGGCGAGAGCGGCGCAAGATCAAGAGAGCTG 1080  
 QY 1288 CGCAAGACCTGTCTGCGCTGGGCTTCAACACCCCGCAAGAGAGACCAAGAGAGAGCCC 1347  
 DB 1081 CGCAAGACCTGTCTGCGCTGGGCTTCAACACCCCGCAAGAGAGACCAAGAGAGAGCCC 1140  
 QY 1348 CCTTCTGTGATGGGCTTCAAGAGTCAACCCCGCAAGAGAGAGAGAGAGAGAGAGAGAG 1407  
 DB 1141 CCTTCTGTGATGGGCTTCAAGAGTCAACCCCGCAAGAGAGAGAGAGAGAGAGAGAGAG 1200  
 QY 1408 CTGCGCGAGAGAGAGAGTGGACCTGTAACGATCCAGAGAGTGTGGGCAAGCTGTAAC 1467  
 DB 1201 CTGCGCGAGAGAGAGTGGACCTGTAACGATCCAGAGAGTGTGGGCAAGCTGTAAC 1260  
 QY 1468 TGGGCGAGCGAGATCTACCCCGGAGTCAAGGTGGCGCAAGCTGTGCAAGCTGTGCGGCG 1527  
 DB 1261 TGGGCGAGCGAGATCTACCCCGGAGTCAAGGTGGCGCAAGCTGTGCAAGCTGTGCGGCG 1320  
 QY 1528 GCCAAGGCTTGAACGATGTGCTCCCTGACCGAGAGAGGCTGAGTGAAGTGGCCAG 1587  
 DB 1321 ACCAAGGCTTGAACGATGTGCTCCCTGACCGAGAGAGGCTGAGTGAAGTGGCCAG 1380  
 QY 1588 AACCGGAGATCTGTGCGGAGACCCGCTGACCGGCGGTGATCTGAGACCCCGAGAGAGAG 1647  
 DB 1381 AACCGGAGATCTGTGCGGAGACCCGCTGACCGGCGGTGATCTGAGACCCCGAGAGAGAG 1440  
 QY 1648 GTGGCGGAGATCTCAAGAGAGAGGCGCAACGAGTGAAGCTTCAAGATCTACAGAGAGCC 1707  
 DB 1441 ATGCGCGAGATCTCAAGAGAGAGGCGCAACGAGTGAAGCTTCAAGATCTACAGAGAGCC 1500  
 QY 1708 TTCAAGAACTGAAGAGCGGCAAGTACCGCAAGATGCGCACCGGCCACCAACGAGAGCTG 1767  
 DB 1501 TTCAAGAACTGAAGAGCGGCAAGTACCGCAAGATGCGCACCGGCCACCAACGAGAGCTG 1560  
 QY 1768 AAGCAGCTGACCGAGGCGGTGCAAGAGATTCGCCATGAGAGAGATGTGATGAGGCGCAG 1827  
 DB 1561 AAGCAGCTGACCGAGGCGGTGCAAGAGATTCGCCATGAGAGAGATGTGATGAGGCGCAG 1620  
 QY 1828 AACCCCAAGTCCGCGCTGCCATCCAGAGAGAGAGCTGGGAGACCTGTGAGACCGACTAC 1887  
 DB 1621 ACTCCCAAGTTCAGAGTCCCATTCAGAGAGAGAGCTGGGAGGCTGTGTGAGACCGAGTAC 1680  
 QY 1888 TGGCAGGCGCACTGTGATCCCGAGTGGAGATTGTGAACAACCCCGCTGTGTGAAGCTG 1947  
 DB 1681 TGGCAGGCGCACTGTGATCCCGAGTGGAGATTGTGAACAACCCCGCTGTGTGAAGCTG 1740  
 QY 1948 TGTGACAGCTGGAAGAGAGGCTCATTCGGGCGCGAGAGCTTCAAGTGAAGCGCGCC 2007  
 DB 1741 TGTGACAGCTGGAAGAGAGGCTCATTCGGGCGCGAGAGCTTCAAGTGAAGCGCGCC 1800  
 QY 2008 GCGAACCGGAGAGCAAGATCGGCAAGGCGGCTACGTGACCGAGCGGCGCGAGAG 2067  
 DB 1801 GCGAACCGGAGAGCAAGATCGGCAAGGCGGCTACGTGACCGAGCGGCGCGAGAG 1860  
 QY 2068 ATGTGAGCTGAGACCGAGAGCAACCAAGAGAGAGCTGAGAGCTTCAAGCTGTGCGC 2127  
 DB 1861 GTGTGAGCTTGAACCGAGAGCAACCAAGAGAGAGCTGAGAGCTTCAAGCTGTGCGC 1920  
 QY 2128 CTGCAAGAGAGGCGAGAGAGTGAACATGTGACCGAGAGAGAGAGAGAGAGAGAGAG 2187  
 DB 1921 CTGCAAGAGAGGCGAGAGAGTGAACATGTGACCGAGAGAGAGAGAGAGAGAGAGAG 1980  
 QY 2188 ATTCAGGCGGAGCGGAG 2247

Db 1981 ATCCAGGCCCAAGCCGACAGTCCGAGTGTGTCTCCAGATCATCAGACAGCTG 2040  
Qy 2248 ATCAAGAAGAGAGGTGTACTGAGCTGGGTGCCCCGCCCAAGAGGACATGGGGGCAAC 2307  
Db 2041 ATCAAGAGAGAGAGGTGTACTGAGCTGGGTGCCCCGCCCAAGAGGACATGGGGGCAAC 2100  
Qy 2308 GAGCAGATCGACAAGCTGTGTGAGCAAGGGGCAATCCGCAAGTGTCTTTCTTGACGGCATC 2367  
Db 2101 GAGCAGGTGACAGAGCTGTGTCCGCGCGCATCCGCAAGTGTCTTTCTTGACGGCATC 2160  
Qy 2368 GATGGCGGCATCGATGTATTCACGTA 2393  
Db 2161 GACAAGGCCCAAGAGAGACAGAGA 2186

RESULT 9  
US-09-552-950-2  
; Sequence 2, Application US/09552950  
; Patent No. 6541248  
; GENERAL INFORMATION:  
; APPLICANT: Oxford Biomedica (UK) Limited  
; TITLE OF INVENTION: Anti-viral Vectors  
; FILE REFERENCE: 674524-2004  
; CURRENT APPLICATION NUMBER: US/09/552,950  
; NUMBER OF SEQ ID NOS: 22  
; SOFTWARE: Patentin Ver. 2.1  
; SEQ ID NO 2  
; LENGTH: 4307  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: gagpol-synbp - codon  
US-09-552-950-2

Query Match 68.0%; Score 1678.6; DB 3; Length 4307;  
Best Local Similarity 82.9%; Pred. No. 1.2e-254;  
Matches 1968; Conservative 0; Mismatches 389; Indels 16; Gaps 4;

Qy 12 CATGGCCGAGGCCATGAGCCAGG--CCACCAAGCCCAATCTCTGATGACGCGCAGCA 68  
Db 1086 CTGGCTGAGGCCATGAGCCAGTGAACCACTCCCTACATCATGATGACGCGCGCA 1145  
Qy 69 CTTCAAGGGCCCAAGCCATCATCAAGTGTCTCAATGCGGCAAGAGGGCAATGCG 128  
Db 1146 CTTTCGGAACCAAGCCAAAGATGCTCAAGTGTCTCACTGTGCAAGAGAGGACACAGC 1205  
Qy 129 CCGCAACTGCGCGCCGCCCGCAAGAGGGCTGTGAAATGCGGCAAGAGGGCACCA 188  
Db 1206 CCGCAACTGCGAGGGCCCTTAAAGAAAAGGGCTGTGAAATGCGGCAAGAGGGCACCA 1265  
Qy 189 GATGAAGACTGTACACCGAGCGCCAGGCCAATTCTTCCGCAAGACCTGGCTTCCCA 248  
Db 1266 GATGAAGAACTGTACGAGAGACAGGCTAA--TTTTTAAAGGAAGATCTGGCTTCTTCA 1324  
Qy 249 GGGCAAGGCCCGCGAGTTCCTCCAGGAGAGAGAACCGGCGCAACAGGCCCAAGCGGGA 308  
Db 1325 AGGGAAAGCCAGAGGAATTTTCTTCAGAGCAAGCCGCGCAACAGCCCAACCGCGGGA 1384  
Qy 309 GCTGCAAGGT-----GCGCGGAGCAACCCCGCAGAGGCGCGCGCGCGCAAGG 362  
Db 1385 GCTTCAAGTCTGGGGTCCGCAACAACATCTCCCTCCGAAAGAGAGCGCAAGCGCAAGG 1444  
Qy 363 CA-----CCCTGAACCTTCCCGAGATCACTGTGCGAGCGCCCTTGTGAGCATCA 416  
Db 1445 CACGATGCTCTTCACTTCCCTCAGGTACAGCTTGTGCGAGGAGCCCTGTACACATCA 1504  
Qy 417 GGTGGGCGGCGAGATCAAGAGAGCGCTGTGAGCAACCGGCGCGGCAACACGCTGTGA 476  
Db 1505 GATGGGCGGCGAGCTCAAGAGAGGCTCTCTGTGACACCGAGAGAGCAACCGTGTGGA 1564  
Qy 477 GGAAGATGAGCTGCGCGCAAGTGAAGCCCAAGATGATCGGCGGATCGGCGCTTCA 536

Db 1565 GGAATGTCTTGGCAGGCGCTGGAAGCCGAAGATATCGGGGAAATCGCGCTTTCAT 1624  
Qy 537 CAAGTCCGCAAGTACAGACAGATCTGATGAGATCTGGGGCAAGAGGCATCGGAC 596  
Db 1625 CAAGTCCGCAAGTACAGATCTGATGAGATCTGGGGCAAGAGGCATCGGAC 1684  
Qy 597 CGTGTGATGGGCCCCCAACCCCGTGAACATCATCGGCGCAACATGTGTGACCCAGCTGG 656  
Db 1685 CGTGTGTGGGCCCCCAACCCCGTGAACATCATCGGCGCAACATGTGTGACCCAGATCG 1744  
Qy 657 CTGCACTCTGAACCTTCCCATCAGCCCCATCGAGACGCTGCGGCTGAAGCCCGG 716  
Db 1745 TTGCACGCTGAACCTTCCCATCAGACCGATCGAGACGCTGGAAGCCCGG 1804  
Qy 717 CATGGAAGGCCCCCAAGGTGAAGAGTGGGCCCTTACCGAGGAGGAAGATCAAGGCGTAC 776  
Db 1805 GATGAGAGGCCCGCAAGGTCAAGCATGCGCATTAAGAGGAGAGATCAAGGCACTGCT 1864  
Qy 777 CGCATCTGCGAGGAGATGAGAGAGAGGCGCAATCAACAGATCGGCCCGGAAACC 836  
Db 1865 GGAATTTGACAGAGATGAG 1924  
Qy 837 CTACACAACCCCGGTGTTCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 896  
Db 1925 GTACACAACCGCGGTGTTCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1984  
Qy 897 GGAATTCGCGAGAGTGAACAGAGCGCACCCAGGACTTCTGGAGAGGTGACAGCTGGGATCC 956  
Db 1985 GGAATTCGCGAGAGTGAACAGAGCGCACCCAGGACTTCTGGAGAGGTGACAGCTGGGATCC 2044  
Qy 957 CCAACCCGCGCGCTGGAAG 1016  
Db 2045 GCAACCCGCGAGGCTGGAAG 2104  
Qy 1017 CTTGAGGTGCTCTGAG 1076  
Db 2105 CTTCTCGGTTCCTCTGAG 2164  
Qy 1077 CAAG 1136  
Db 2165 CAAG 2224  
Qy 1137 CAGCCCGAGCATCTTCAAG 1196  
Db 2225 CTTCTCGGAGATCTTCAAG 2284  
Qy 1197 CCGGAGATGTGATCTACAGATACATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1256  
Db 2285 CCGGAGATGTGATCTACAGATACATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2344  
Qy 1257 CCGGAG 1316  
Db 2345 AGGGAG 2404  
Qy 1317 CAGCCCGAG 1376  
Db 2405 CAG 2464  
Qy 1377 CCGGAG 1436  
Db 2465 CCGTGAAG 2524  
Qy 1437 GCAATCTCAAG 1496  
Db 2525 GCAATCTCAAG 2584  
Qy 1497 GGTGCGCAAGCTGTGAG 1556  
Db 2585 GGTGAG 2644  
Qy 1557 GACGAG 1616



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Db      1985 GGAATTCCGAGGCTGAACAAGCCGACAGACTTCTGGAGGTTGAGCTGGGCAATCCC 2044
Qy      957  CCACCCCGCGCGCTGAAGAAAGAGAGCGTGAACCTGCTGGACCTGGGCGACCGCTTA 1016
Db      2045 GCACCCCGCAGGGCTGAAGAAAGAAATCCGTGACCTGATCGATGAGTGAGGTGATGCCCTA 2104
Qy      1017 CTTGAGCGTGCCTCTGACGAGAGACTTCGCGAAGTACACCGCTTCAACATCCCAGCAT 1076
Db      2105 CTTCTCCGTTCCCTTGGACGAAAGCTTCGAGAAAGTACCTGCTTCAACATCCCTTGAT 2184
Qy      1077 CAACAAAGAGACCCCGCGCATCCGCTACAGTACAAACGTGTCGCCAGGGCTGAAAGG 1136
Db      2165 CAACAAAGAGACCCCGGGGATTTCGATATCAGTACAAACGTGTCGCCAGGGCTGAAAGG 2224
Qy      1137 CAGCCCCAGCATCTTCCAGACAGATACCAAGATCCTGAGGCCCTTCCGCGCCGGA 1136
Db      2225 CTCTCCGCAATCTTCCAGAGTACATGACCAAAATCTGAGACCTTTCGCAAAAGAA 2284
Qy      1197 CCCCAGATCGTGAATCTACAGTACATGAGCAACCTGTAAGTGGGCAAGCACTGAGAT 1256
Db      2285 CCCCAGATCGTGAATCTACAGTACATGAGCAACCTGTAAGTGGGCAAGCACTGAGAT 2344
Qy      1257 CGGCGAGCACCGCGCAAGATCGAGAGCTGCGCAAGCACTGCTCGCTGGGCTTCCAC 1316
Db      2345 AGGGAGGACCGGCAACCAAGATCGAGAGCTGCGCAAGCACTGCTTGAAGTGGGCACTGAC 2404
Qy      1317 CACCCCGCAAGAAAGCACCAAGAGAGCCCTCTCTCTGAGATGGGCTACAGACTGCA 1376
Db      2405 CACACCCCGCAAGAAAGCACCAAGAGAGCCCTCTCTCTGAGATGGGCTACAGACTGCA 2464
Qy      1377 CCCCAGACAAAGTGAACCTGAGACCCATCGAGCTGCGCGCAAGAGAGACTGGAACGTGAA 1436
Db      2465 CCCCAGACAAAGTGAACCTGAGACCCATCGAGCTGCGCGCAAGAGAGACTGGAACGTGAA 2524
Qy      1437 CGACATCCAGAAAGCTGTGGGCAAGCTGAACCTGAGCGCAAGCAATTAACCCGCGATCAA 1496
Db      2525 CGACATACAGAAAGCTGTGGGCAAGCTGAACCTGAGCGCGCAAGCAATTAACCCGCGATCAA 2584
Qy      1497 GGTGCGCGACGTGTGCAAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 1556
Db      2585 GGTGCGCGACGTGTGCAAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 2644
Qy      1557 GACCGAGGAGGCGCGAGCTGAGAGCTGCGCGAGAACCGCGAGATCCCTGCGCGAGCGCGTGA 1616
Db      2645 AACCGAGGAGGCGCGAGCTGAGAGCTGCGCGAGAACCGCGAGATCCCTGCGCGAGCGCGTGA 2704
Qy      1617 CGGCGTGTACTACGACCCCGAGCAAGAGCTGTGTGCGCGAGATCCGAGAGCGGCGCA 1676
Db      2705 CGGCGTGTACTATGACCCCTCGAAGAGCTGTATGCGCGAGATCCGAGAGCGGCGCAAGG 2764
Qy      1677 CCACTGAGACTTACAGATCTACAGAGAGCTTCAAGAACTCTGAAGAACCGCGAGAGTACG 1736
Db      2765 CCACTGAGACTTATCAGATTTTACAGAGAGCTTCAAGAACTCTGAAGAACCGCGAGAGTACG 2824
Qy      1737 CAAGATGAGCAGCGCGCACCAACAGAGCTGTAAGAGCTGACCGAGGCGCTGAGAGAT 1796
Db      2825 CCGAGTGAAGGAGTCCGACACTTAAGAGCTGTAAGAGCTGACCGAGGCGCTGAGAGAT 2884
Qy      1797 CGCGATGAGAGCATCTGTATCTGTGGGCAAGACCCCGAAGTTCCGCTGCCATCCAGAA 1856
Db      2885 CACGACCGAAGAGCATCTGTATCTGTGGGCAAGACTCTTAAGTTCAAGCTGCCATCCAGAA 2944
Qy      1857 GGAAGACTGAGAGACTGTGTGAGCCGACTACTGTGAGAGCGCACCTGATCCCGAGTGGGA 1916
Db      2945 GGAAGACTGAGAGAACTGTGTGAGCAGAGTATTGGAGGCGCACCTGATTTCTGTAGTGGGA 3004
Qy      1917 GTTGTGTAACACCCCGCTGTGTGAGCTGTGTGTAACAGCTGAGAGAGAGGCCATCAT 1976
Db      3005 GTTGTGTAACACCCCTGTGTGTGAGAGCTGTGTGTAACAGCTGAGAGAGAGGCCATCAT 3064
Qy      1977 CGGCGCGAGAGCTTTCTACTGTGAGCGGCGCGCGCACCGCGAGACCAAGATCGGCAAGGC 2036

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Db      3065 GAGGCGCGGAAACCTTCTACGTGATGAGGCGCGCTTAACAGGAGACTAAGCTGGCAAGC 3124
Qy      2037 CGGCTAGTGAACGACCGGGGCGGCAAGAGATGTGAGCTGACCGAGACCAACCA 2096
Db      3125 CGATAGCTGACTAACCGGGGCGACAGAGAGTGTGACCTCTGACACCAACCA 3184
Qy      2097 GAAGACCGAGCTGAGGCGCATCCAGCTGCGCTTCAGAGACAGCGGAGAGTGAACAT 2156
Db      3185 GAAGACCGAGCTGAGGCGCATTTTACCTCGCTTTCAGAGACTCGGCGCTGAGAGTGAACAT 3244
Qy      2157 CGTGAACGACAGCGAGTACGCGCTTGGGATCATCAAGGCCAGCCGACAGAGAGAG 2216
Db      3245 CGTGAACAGCTTCAAGTATGCGCTTGGGATCATCAAGGCCAGAGCGAGAGTGAAGTC 3304
Qy      2217 CGAGCTGATGAACCAAGATCATCGAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTG 2276
Db      3305 CGAGCTGATCATAGATCATCGAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTG 3364
Qy      2277 GGTGCGCGCGCGCAAGGAGCATCGGCGCAACGAGCAGATCGAACAGCTGTGAGCAAGG 2336
Db      3365 GGTACCGCGCGCAAGAGGAGCATGCGCGCAATGAGCAGAGTGAACAGCTGTGCTG 3424
Qy      2337 CATCGCAAGTGTCTTCTTCTGAGCGGATCGA 2369
Db      3425 CATCAGGAGGTGCTATTCTGATGAGCATCGA 3457

RESULT 11
US-09-936-572-14
; Sequence 14, Application US/09936572
; Patent No. 6783981
; GENERAL INFORMATION:
; APPLICANT: USEN, MARK
; APPLICANT: MITROPHANOUS, KYRIACOS
; TITLE OF INVENTION: ANTI-VIRAL VECTORS
; FILE REFERENCE: 07883/0137
; CURRENT FILING DATE: US/09/936, 572
; PRIOR FILING DATE: 2001-12-11
; PRIOR APPLICATION NUMBER: PCT/GB00/01002
; PRIOR FILING DATE: 2000-03-17
; PRIOR APPLICATION NUMBER: GB 9906177.2
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 73
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 14
; LENGTH: 4327
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: psynGP4-codon
; OTHER INFORMATION: Optimised HIV-1 gagpol with 20bp of the leader
; OTHER INFORMATION: sequence of HIV-1
US-09-936-572-14

Query Match 66.9%; Score 1651.4; DB 3; Length 4327;
Best Local Similarity 82.2%; Pred. No. 2.2e-250;
Matches 1951; Conservative 0; Mismatches 406; Indels 16; Gaps 4;

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QY 249 GGGCAGAGCCCGCGAGTTCCCCAGAGCAGAAACCGGCCCAACGCCCCCAACAGCCCGCA 308  
Db 1345 AGGGAAAGCCAGAGAAATTTTCTTCAGAGCAGACAGAGCCAAACGCCCCACAGAAAGAGA 1404  
QY 309 GCTGCAGGTGGCGG-----CGAACACCCCGCAGAGCGCGCGCGCGAGCGCGCAAGG 362  
Db 1405 GCTTCAGGTTTGGGAGAGAACAACTCCCTTCAGAGAGAGAGCGGATGACAAAGG 1464  
QY 363 CA-----CCCTGAACCTTCCCCAGATCAACCTGTGGAGCGCCCCCTGTGAGCATCA 416  
Db 1465 AACTGTATCTTTAGCTTCCCTCAGATCACTTTGGAGAGCAACCCCTGTCACAATAA 1524  
QY 417 GGTGGCGGCGCAGATCAAGAGAGCCCTGTGAGCAACCGCGCGAGCAACCTGTCTGA 476  
Db 1525 GATAGGGGGGAGCTCAAGAGAGCTCTCTGAGCAACCGAGCAGACGACACCTGTCTGA 1584  
QY 477 GAGATGAGCCTGCGCGCGCAGTGAAGCCCAAGATGATCGCGCGCATCGCGGCTTGAT 536  
Db 1585 GAGATGTCTGTGCGAGGCGCTGAGAGCCGAAGATGATCGGGGAAATCGCGGTTTCA 1644  
QY 537 CAAGGTGGCGCAGTACAGACAGATCTGATCGAGATCTGCGGCAAGAAAGCCATCGCAC 596  
Db 1645 CAAGGTGGCGCAGTATGACAGATCTCTCATCGAAATCTGCGGCAACAGGCTATGCTAC 1704  
QY 597 CGTGTGATCGGCGCCCAACCCCGTGAACATCATCGGCGCAACATGCTGACCCAGCTGG 656  
Db 1705 CGTGTGTGGGCGCCCAACCCGTCAACATCATCGGAGCAACCTGTTGACCAATCGG 1764  
QY 657 CTGCAACCTGAACTTCCCATCAGCCCACTGAGACCGTGGCCGTTGAAGCTGAACCGCG 716  
Db 1765 TTGCAACGTGAACCTTCCCATGAGCCCTATCGAGACGATACCGGTGAAGCTGAACCGCG 1824  
QY 717 CATGAGCGGCGCCCAAGGTGAAGCAGTGGGCGCCCTGACCGAGAGAAATCAAGCCCTGAC 776  
Db 1825 GATGAGCGGCGCCGAAGGTCAAGCATGAGCATTTGACAGAGAGAAATCAAGGCACTGAT 1884  
QY 777 CGCCATCTGCGAGAGATGAGAGAGAGGCAAGATCAACAAATCGGCGCCGAGAACCC 836  
Db 1885 GAGAGTTTGCACAGAGATGAGAAAGAGAAATCTCCAAAGATTGGGCTGAGAACCC 1944  
QY 837 CTACAAACACCCCGTGTTCGCACTCAAGAAAGAGACAGACCAAGTGGCGCAAGCTGAT 896  
Db 1945 GTACAAACACCGCGGTGTTCGCACTCAAGAAAGAGATCGAAGAAATGCGCAAGCTGAT 2004  
QY 897 GGAATTCGCGGAGCTGAACAAGCGACCGAAGACTTCTGGAGAGTGCAGCTGGGCAATCC 956  
Db 2005 GGAATTCGCGGAGCTGAACAAGCGACCGAAGACTTCTGGAGAGTGCAGCTGGGCAATCC 2064  
QY 957 CCACCCCGCGGCGCTGAAGAAAGAGAGCGTGAACCGTGTGAGCGTGGCGACGCTTA 1016  
Db 2065 GACCCCGGAGGCTGAAGAAAGAAATCCGTGACCGTATCTGAGATGTGGTGAATCCCTA 2124  
QY 1017 CTTCAGCGTGGCCCTGAGAGAGACTTTCGCAAGTACACCGCTTCAACATCCCAAGAT 1076  
Db 2125 CTTCCTCGTTCCCTGAGAGAACTTCAGAAAGTACATCGCTTCAACATCCCTGAT 2184  
QY 1077 CAACAAAGAGACCCCGGCGATCCGCTACAGATCAACAGTGCAGCGCCAGAGGCTGAAGG 1136  
Db 2185 CAACAAAGAGACCCCGGAGATTCGATATCAAGATCAAGTGCAGCGCCAGAGGCTGAAGG 2244  
QY 1137 CAGCCCAAGCATCTTCAGAGCAGATGACCAAGATCTGAGACCTTCGCGCGCCGCA 1196  
Db 2245 CTCTCCCGCAATCTTCAGAGTACATGACCAAAATCTGAGACCTTCGCGCAAAAGAA 2304  
QY 1197 CCCCAGATCTGATTTACAGTACATGACGACTGTACGTGGGCGAGGACTTGAAGAT 1256  
Db 2305 CCCCAGATCTGATCTATCAATGATGATGATGATGATGATGATGATGATGATGATGAT 2364  
QY 1257 CGGCGAGACCGGCGCAAGTGAAGAGGCTGGCAGAGCACTGCTGCGGCGCTTCA 1316  
Db 2365 AGGCGAGACCGGCAAGATGAGAGGCTGGCAGAGCACTGCTGAGGTTGAGGAGCTGAC 2424

QY 1317 CACCCCGAGCAAGAGACCAAGAGAGCCCCCTTCTGTGATGAGGCTACAGAGTCA 1376  
Db 2425 CACACCGGACAAAGAAACCAAGAAAGAGCTTCTCTTCTGTGATGAGGCTGCA 2484  
QY 1377 CCCCAGAGAGTGAACCGTGCAGCCCATGAGCTTCCCGAGAGAGAGAGTGAACCTGAA 1436  
Db 2485 CCTGACAAATGAGACCGTGCAGCTTATGTCTGCTCAGAGAAAGACAGCTGATGCA 2544  
QY 1437 GCACTCCAGAGAGCTGTGGGCAAGCTGAACTGTGGCCGAGCCAGATCTTCCCCGATCA 1496  
Db 2545 GCACATACAGAGAGCTGTGGGAAAGTTGAACCTGGCCAGTACAGATTTCAGAGGATTA 2604  
QY 1497 GGTGGCGAGCTGAGAGAGCTGTGGCGGCGCCAGAGCCCTGACCGCATGTGCTCT 1556  
Db 2605 GGTGAGAGCTGTGCAAACTCTCCGCGAAACAGGCACTCAGAGAGTATCCCT 2664  
QY 1557 GACCGAGAGGCGGAGCTGAGCTGAGCTGAGAGACCGAGATCTTCGCGAGCCGTGCA 1616  
Db 2665 AACCGAGAGGCGGAGCTGAGCTGAGAGAAACAGAGATCTTAAAGAGCCGTGCA 2724  
QY 1617 CGGCGTGTATACAGACCCAGAGAGAGCTGTGGCGAGATCCAGAGAGAGGCGCA 1676  
Db 2725 CGGCGTGTATGAGACCCCTCAGAGAGCTGATCGCCAGATCCAGAGAGAGGCGCA 2784  
QY 1677 CCAATGAGCTTACAGAGATCTACAGAGCCCTTCAAGACCTGAAGACCGGCAAGTAC 1736  
Db 2785 CCAATGAGCTTACAGAGATCTTACAGAGCCCTTCAAGACCTGAAGACCGGCAAGTAC 2844  
QY 1737 CAAGATGCGACACCGGCCACCAACAGAGTGAAGAGCTGACCGAGCGCTGAGAGAT 1796  
Db 2845 CCGATGAGGGGCTGCCACATACAGAGCTGAGAGAGCTGAGAGAGCTGAGAGAT 2904  
QY 1797 CGCCATGAGAGCATGTGATCTGGGCAAGACCCCAAGTTCCGCTGCCATCAAGAA 1856  
Db 2905 CACCAACGAAAGCATGTGATCTGGGAAAGCTCTAAGTTCAAGCTGCCATCAAGAA 2964  
QY 1857 GAGAGCTTGGAGAGCTGTGAGACCGATCTGGAGGCGACCTGAGATCCCGAGTGGGA 1916  
Db 2965 GAGAACTTGGAGAACTGTGAGACAGATGTGGGAGGCGACCTGAGATCTGAGTGGGA 3024  
QY 1917 GTTGTGAGACACCCCGCTGTGAGAGCTGTGATACAGCTGAGAGAGAGCCATCAT 1976  
Db 3025 GTTGTGAGACACCCCGCTGTGAGAGCTGTGATACAGCTGAGAGAGAGCCATCAT 3084  
QY 1977 CGGCGCGAGAGCTTCTAGTGAAGCGCGCGCAACCGGAGACCAAGATCGGCAAGC 2036  
Db 3085 GGGCGCGAGAGCTTCTAGTGAAGCGCGCGCAACCGGAGACCAAGATCGGCAAGC 3144  
QY 2037 CGGCTACGTGACCGAGCCGGGCGGCAAGATCTGAGCTGAGACCGAGACCAAGCA 2096  
Db 3145 CGGATACGTCACTTACCGGGGCGAGCAGAAAGTTTTCACCTTCATGACACCAAGCA 3204  
QY 2097 GAAAGCCGAGCTGAGGCGCATCAGCTGCGCCCTGAGAGACAGCGGAGGAGTGAACAT 2156  
Db 3205 GAAAGCTGAGCTGAGGCGCATTTTACCTGCTTTCAGAGACTGGGCGTGAAGTGAACAT 3264  
QY 2157 CGTGAACGAGCAGTACGCTTGGGCACTACAGAGCCAGCCGAGCAAGAGCGAGAG 2216  
Db 3265 CGTGAACGAGCTGAGTACGCTTGGGCACTTTCAGAGCCAGAGCAGAGAGTGAATC 3324  
QY 2217 CGAGCTGTGAAACAGATATGAGAGCTGATTCAGAAAGAGAGAGTGAATCTGAGCTG 2276  
Db 3325 CGAGCTGTGAAATCAGATATGAGAGCTGATTCAGAAAGAGAGAGTGAATCTGAGCTG 3384  
QY 2277 GGTGCGCGCCCAAGAGGAGCTGGGCGCAACAGAGATCGAACAGCTGTGAGCAAGG 2336  
Db 3385 GGTACCGCGCCCAAGAGGAGCTGGGCGCAATGAGAGAGTGAATCTGAGCTGTG 3444  
QY 2337 CATCGCAAGATGTCTTCTGAGCGCATGCA 2369  
Db 3445 CATCAAGAGGATGTCTTCTGAGATGAGTCA 3477

RESULT 12  
US-09-936-572-13  
Sequence 13. Application US/09936572  
Patent No. 6783981  
GENERAL INFORMATION:  
APPLICANT: UDEN, MARK  
APPLICANT: MITROPHANOUS, KYRIACOS  
TITLE OF INVENTION: ANTI-VIRAL VECTORS  
FILE REFERENCE: 078883/0137  
CURRENT APPLICATION NUMBER: US/09/936,572  
CURRENT FILING DATE: 2001-12-11  
PRIOR APPLICATION NUMBER: PCT/GB00/01002  
PRIOR FILING DATE: 2000-03-17  
PRIOR APPLICATION NUMBER: GB 9906177.2  
PRIOR FILING DATE: 1999-03-17  
NUMBER OF SEQ ID NOS: 73  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 13  
LENGTH: 4353  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: pSYNGF3-codon  
OTHER INFORMATION: Optimised HIV-1 gagpol with leader sequence from  
OTHER INFORMATION: the major splice donor  
US-09-936-572-13

Query Match 66.9%; Score 1651.4; DB 3; Length 4353;  
Beet Local Similarity 82.2%; Pred. No. 2.2e-250;  
Matches 1951; Conservative 0; Mismatches 406; Indels 16; Gaps 4;  
QY 12 CATGAGCCGAGGCGCATGAGCCAGG---CCACGAGCGCCCAATCTCTGATGACGCGAGCA 68  
DB 1132 CTGAGCTGAGGCGCATGAGCCAGGAGCCCACTCCGCTACATCATGATGACGCGGGA 1131  
QY 69 CTTCAAGGCGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGGSCCACTATGC 128  
DB 1192 CTTTCGGAACCAAGCAAGATGTCAGTGTCTTCAACTGTGSCAAAGAGGSCACACAGC 1251  
QY 129 CCGCACTGCGCGCGCGCGCGCGCGCGAGAGGCTGCTGAGAGTGGCGCAAGAGGCGCACCA 188  
DB 1252 CCGCACTGCAAGGCG 1311  
QY 189 GATGAAGCATGCACTGAGCG 248  
DB 1312 AATGAAGATTGATGAGAGCAAGCTTA--TTTTTGAAGAAAGATCTGGCTTCCACA 1370  
QY 249 GAGCAAGCG 308  
DB 1371 AGGGAAGCGCGAGGAAATTTTCTTCAAGACAGCAAGCAAGCGCGCGCGCGCGCGCG 1430  
QY 309 GCTGCAAGTGGCGG-----CGACAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 362  
DB 1431 GCTTCAAGGTTTGGGAGAGACAACAACCTCTCTCAAGACAGAGCGCGATGACAAAG 1490  
QY 363 CA-----CCCGAAGCTTCCCGCGAGATCACTCTGGAGAGCGCGCGCGCGCGCGCG 416  
DB 1491 AACTGTATCTTAACTTCCCTCAAGATCACTTTTGGAGGAGACCCCTGCTCAATTA 1550  
QY 417 GGTGGCGCGCGAGATCAAGAGGCGCTGTCGACACCGCGCGCGCGCGCGCGCGCGCGCG 476  
DB 1551 GATAGGGGGGAGCTCAAGAGGCGCTCTCTGACACCGGAGCAGACGACCGTGTGGA 1610  
QY 477 GAGATGAGCTGCG 536  
DB 1611 GAGATGCTGTTGCGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1670  
QY 537 CAAGGTGCGAGTACGACGAGATCTGATGAGATCGCGCGCGCGCGCGCGCGCGCGCGCG 596  
DB 1671 CAAGGTGCGAGTACGAGATCTGATGAGATCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1730  
QY 597 CGTGTGATCGGCG 656  
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DB 1731 CGTGTGAGGCG 1790  
QY 657 CTGACCCCTGAATCTTCCCATCAGCCCATCGAGACCGTGCGCGCGAGCTGAAGCCCGG 716  
DB 1791 TTGACGCTGAATCTTCCCATCAGCCCATCGAGACCGTGCGCGCGAGCTGAAGCCCGG 1850  
QY 717 CATGACG 776  
DB 1851 GATGACG 1910  
QY 777 CGCATCTGAGAGAGATGAGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 836  
DB 1911 GGAATTTGACACAGATGAGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1970  
QY 837 CTACACACCCCGGTGTTCCCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 896  
DB 1971 GTACACACCGCGGTGTTCCCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2030  
QY 897 GGACTTCGCGAGCTGACACAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 956  
DB 2031 GGACTTCGCGAGCTGACACAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2090  
QY 957 CCACCCCG 1016  
DB 2091 GCAACCCCG 2150  
QY 1017 CTTCAAGGTCG 1076  
DB 2151 CTTTCCGTTCCCTTGACAGAGCTTCAAGAGATACCTGCTTCAATTCCTTGAT 2210  
QY 1077 CAACACAGAGACCCCG 1136  
DB 2211 CAACACAGAGACCCCG 2270  
QY 1137 CAGCG 1196  
DB 2271 CTTCCCG 2330  
QY 1197 CCGCGAGTCGATCTACAGATGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1256  
DB 2331 CCGCGAGTCGATCTACAGATGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2390  
QY 1257 CCGCGAGACCG 1316  
DB 2391 AGGCGACGACCG 2450  
QY 1317 CACCCCG 1376  
DB 2451 CACACCG 2510  
QY 1377 CCGCGCGAGTGAACCGTGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1436  
DB 2511 CCGCGCGAGTGAACCGTGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2570  
QY 1437 CGACATCCAGAGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1496  
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QY 1497 GGTGCGCGAGTGTGCG 1556  
DB 2631 GGTGAGCGAGTGTGCG 2690  
QY 1557 GACCGAGAGCG 1616  
DB 2691 AACCGAGAGCG 2750  
QY 1617 CGGCGGTATCTACAGACCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1676  
DB 2751 CGGCGGTATCTATGACCCCTCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2810  
QY 1677 CCAGTGACCTTACAGATCTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1736  
DB 2811 CCAGTGACCTTATGATTTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2870  
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Qy	1737	CAAGATGCGCA	CCGCCCCAC	CAACCA	CGTGAAG	AGCTGAC	ACCGAGG	CGGTGCAGAA	AGAT	1796			
Db	2871	CCGAGATGAGGG	GTGCCAC	CTAA	CGATCGAT	CAGAC	CTGATCCGAGG	CGTGCAGAA	AGAT	2930			
Qy	1797	CGCCATGAGAG	AGCATCTGT	ATCTTG	GGGCA	GAAGCCCC	CAAGTTCCG	CTGCCAT	TCAGAA	1856			
Db	2931	CACCA	CCGAAAGCAT	CGTGATCTTG	GGGAAA	GAAGCTCTTA	GTTCAG	CTGCTGCCAT	CCAGAA	2990			
Qy	1857	GGAGACTTG	GGAGAGACTGT	GTGGA	CCGACTATCTG	GAGCCCA	CTGAGAT	TCCCGAG	GGGA	1916			
Db	2991	GGAAACCT	GTGGAAACCTGT	GTGGA	CAGAGTATTTG	CAGGCA	CCCTGTGAT	TCTTGAT	GTGGGA	3050			
Qy	1917	GTTCGTG	TAACACCC	CCCCCTCG	GTGAAGCTGT	GTGTACAG	CTGTGGA	GAAAGAC	CCCATCAT	1976			
Db	3051	GTTCGT	TAACACCCCT	CCCCCTCG	GTGAAGCTGT	GTGTACAG	CTGTGGA	GAAAGAC	CCCATAGT	3110			
Qy	1977	CGCGCCG	GAGACCTT	CTTAC	GTGGA	CGGCGCCG	CAACCG	CGAGACA	CAAGATCGG	CAAGGC	2036		
Db	3111	GGGGCGCC	GAAACCTT	CTTAC	GTGGA	TGTGGGG	CGCTTAA	CAGGGAG	CTTAAGCTGG	CCAAAGC	3170		
Qy	2037	CGGCTAC	GTGACCGA	CCGGGGG	CGGCGA	GAAGTGT	GAGCCTGA	CCAGAC	CAACCA	CA	2096		
Db	3171	CGAGTAC	GTGCTAA	CCGGGGG	CAACAGAA	GTGTGTCA	CCCTCA	CTGAC	CAACCA	CA	3230		
Qy	2097	GAAAGAC	CGAGCTG	CAGGCA	CTCCAG	CTGCGCTG	CAGGACA	CGCGCA	CGAGGTGA	CAT	2156		
Db	3231	GAAAGAC	CTGAGCTG	CAGGCA	CTTAA	CTCGCTT	CAAGGACT	CGGGCT	CGAGGTGA	CAT	3290		
Qy	2157	CGTGA	ACCGACAG	CGA	GTACG	CGCTTG	GGGCTAT	ATCA	GAGCCAG	CCAGCAAGAC	CGAAG	2216	
Db	3291	CGTGA	ACCGACAG	CTCTC	AGTATG	CGCTTG	GGGCTAT	ATCA	GAGCCAG	CCAGCAAGTGA	GTG	3350	
Qy	2217	CGAGCTG	TGTAAC	GAGATCAT	CGAG	CAGCTGAT	CAAGA	AGGATG	TA	CTGAG	CTG	2276	
Db	3351	CGAGCTG	TGTCAT	CGATCAT	CGAG	CAGCTGAT	CAAGA	AGGATG	TA	CTGAG	CTG	3410	
Qy	2277	GGTGC	CCCGCC	CAACAG	GGGCAT	CGGCG	CGACAG	CGACAG	TGCA	CAAGCTGT	GTAG	CAAGG	2336
Db	3411	GGTAC	CCCGCC	CAACAA	GGGCAT	TGGCG	CGACAG	CGAGGAT	CGACA	AGCTGT	GTAG	CAAGG	3470
Qy	2337	CAT	CCGCA	AGGTG	CTGTCT	CTG	GACCG	GAT	TGA	2369			
Db	3471	CAT	CGA	AGGTG	CTGTCT	CTG	AGATG	GCAT	TGA	3503			

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RESULT 13
US-09-936-572-12
; Sequence 12, Application US/09936572
; Patent No. 6783981
; GENERAL INFORMATION:
; APPLICANT: UDEN, MARK
; APPLICANT: MITROPHANOUS, KYRIACOS
; TITLE OF INVENTION: ANTI-VIRAL VECTORS
; FILE REFERENCE: 078883/0137
; CURRENT APPLICATION NUMBER: US/09/936,572
; CURRENT FILING DATE: 2001-12-11
; PRIOR APPLICATION NUMBER: PCT/GB00/01002
; PRIOR FILING DATE: 2000-03-17
; PRIOR APPLICATION NUMBER: GB 9906177.2
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 73
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
; LENGTH: 4642
; TYPE: DNA
; ORGANISM: Artificial Sequence
FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: psynGP2-codon
; OTHER INFORMATION: Optimised HIV-1 gspol with leader sequence
US-09-936-572-12

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**Query Match**

66.9%; Score 1651.4; DB 3; Length 4642;

Best Local Similarity	82.2%;	Pred. No. 2.2e-250;
Matches 1951; Conservative	0;	Mismatches 406; Indels 16; Gaps 4;

QY	12	CATGGGCGAGGSCCATGAGCCGAGG----	CGACCAAGCGCAATCTCATGAGGCGAGCA	80
Db	1421	CTGGGCTGAGGCGCATGAGCCAGGTGAC	CAACTCCGCTACCATGATGAGCGCGGCA	1480
QY	69	CTTCAAGGGCCCAAGCCGATCATCAAGTGC	TTCACTCGGCAAGAGGGGCACATCGC	128
Db	1481	CTTTCGGAACCAACGCAAGATGCTCAAGTCT	CAACTGTGGCAAGAGGGGCACACAGC	1540
QY	129	CCGCAACTGCGCGGCCCCCGCAAGAGGGCT	GTGAGTGCAGCAAGAGGGGCACCA	188
Db	1541	CCGCAACTGAGGGGCCCTTAGAAAAAGGCT	CTTGGAATATGGAAGAGAGCACCA	1600
QY	189	GATGAAGACCTGACCCGAGCGCAAGCCAA	CTTCTTCCGAGAGACTTGCCCTTCCCCA	248
Db	1601	AATGAAGAATTGTATCTGAGAGAGACGGCT	TA-TTTTATAGGAAAGATCTTGCCCTCCACA	1659
QY	249	GGGCAAGGCCCGGAGAGTTCGCCAGAGAGAA	CCGCGCCAAACAGGCCCAAGCCGCA	308
Db	1660	AGGGAAGGCCAAGGAAATTTCTTCAAGCAGAC	CCAGGCCCAACGCCCCCAAGAGAGA	1719
QY	309	GCTGCAGGTGCGCGG-----CGACAAC	CCCCCGCAGCGCGCGCGCGCCAGCGCA	362
Db	1720	GCTTCAGGTTTGGGGAGAGACAACAAC	CTCCCTCAGAAAGCAGAGCCGATAGACA	1779
QY	363	CA-----CCCTGAAC	TTTCCCCCAGATCACCTCTGTGCAGCGCCCT	416
Db	1780	AACGTATCTCTTAACTTACCTTCCCTCAG	ATCACTCTTTTGCACGACCCCTCTGTCA	1839
QY	417	GGTGGGCGGCGAATCAAGAGGCGCGTGTGA	CACCGGCGCGCAGACACCGGTGCTGA	476
Db	1840	GATAGGGGGAGCTCAAGAGGCTCTCTGTGA	CCGAGCAGACACCGGTGCTGGA	1899
QY	477	GGAAGATGAGCTCGCCCGGCAAGTGAAG	CCCAAGATGATCGCGGCAATCGGCGCTT	536
Db	1900	GGAGATGTGTTGTCAGAGCGCGCTGGAAG	CCGAAGATGATCGGCGGATTCGGCGGTT	1959
QY	537	CAAGTGGCCGATGACACAGATCTTGATGTGA	ATTGTGGCGAAGAGCCATCGGCGAC	596
Db	1960	CAAGGTCCGCGAGATATACCAAGATCTCAT	CGAATCTGCGGCCCAAGGCTATCGGTAC	2019
QY	597	CGTCTGATGCGGCCCAACCCCGGTGAACAT	CATCGGCGCGCAACATGTCTGACCCAG	656
Db	2020	CGTCTGTGTGGGCCCAACCCCGTCAACAT	CATGTGACGCACTGTGACGAGATCGG	2079
QY	657	CTGCACCTTGAACTTCCCATCAGCCCAT	TAGAGCCGTGCCGTGAAGCTGAAGCCCG	716
Db	2080	TTGCACCGTGAACTTCCCATTTAGCCCTAT	TGAGACGGTACCGGTGAAGCTGAAGCCCG	2139
QY	717	CATGAGCGGCCCCAAGTGAAGAGTGGCCCT	TGACCGAGGAGAAAGATCAAGGCCCTGAC	776
Db	2140	GATGAGCGGCCCCAAGGTCAAGCATGGCCAT	TGTACAGAGGAGAAATCAAGGCCATGSGT	2199
QY	777	CGCCATCTGCGAGAGATGAGAGAGAGGG	CAAGATCAACAAATCGGCCCCCGAGAACCC	836
Db	2200	GGAGATTTTGCAAGAGATGAAAGAGAGGA	AAATCTCAAGATTTGGGCGCTGAGAACCC	2259
QY	837	CTACACAACCCCGGTGTTCCGCTATCAAG	AGAGAGACGACCAAGTGTGGCGCAACTGT	896
Db	2260	GTAACAACCGCGGTGTTCCGATCAAGAGAA	AGAGATCTGACGAATGTGGCCCAAGTGTGT	2319
QY	897	GGACTTCCGCGAGCTGAACAAGGCCAC	CCAGAACTTCTGAGAGGTGACGTGGGCATCC	956
Db	2320	GGACTTCCGCGAGCTGAACAAGGCCAC	CCAGAACTTCTGAGAGGTGACGTGGGCATCC	2379
QY	957	CCACCCCGCGCGCTGAAGAGAGAGAGCG	TGACCGTGTGACGTGGCGACGCTTA	1016
Db	2380	GCACTCCGCGAGGCTGAAGAGAGAAAT	CTGTGACCGTATCTGATGTGGGTATGCTTA	2439
QY	1017	CTTCAAGTGCCTCTGAGCGAGACTTTCG	CAAGTACACCGGCTTTCACATCCCAAGAT	1076





QY 477 GAGATGAGCTGCGCCGCAAGTGAAGCCAAAGATGATCGCGCATCGCCTTCAAT 536  
 DB 2672 GGAAGATGATGTTGCGAGGCGCGTGGAAAGCCGAAGATGATCGGGGGAATCGCGGTTTCAAT 2731  
 QY 537 CAAGGTGGCCGATACGACCAAGATCTTGAATTCGCGGCAAGAAAGGCCATGGGCAAC 596  
 DB 2732 CAAGGTGGCCGATGACCAAGATCTTGAATTCGCGGCAAGAAAGGCCATGGGCAAC 2791  
 QY 597 CGTGTGATCGGCGCCCAACCCCGTGAACATCATCGGCGCAACATGCTGACCCAGCTGGG 656  
 DB 2792 CGTGTGATGGGCGCCCAACCCCGTGAACATCATCGGCGCAACATGCTGACCCAGCTGGG 2851  
 QY 657 CTGCAACCTGAACTTCCCATCAGCCCATCGAAGACCGTGGCCGTAAGCTGAAGCCGG 716  
 DB 2852 TTGCAACGCTGAATCTCCCATTAAGCCCTATCGAAGCGTGAACCGTGAAGCTGAAGCCGG 2911  
 QY 717 CATGAGCGGCGCCCAAGATGACAGTGGCCCTGACCCGAGGAAATTCAGAGCCCTGAC 776  
 DB 2912 GATGAGCGGCGCCCAAGATGACAGTGGCCCTGACCCGAGGAAATTCAGAGCCCTGAC 2971  
 QY 777 CGCCATCTGCGAGAGATGAGAGAGGAGGCAAGATCACCAAGATCGGCGCCGAGAACCC 836  
 DB 2972 GAGATTTGCAAGAGATGAGAGAGGAGGAAATTCAGAGATTTGGGCTGAGAACCC 3031  
 QY 837 CTACAAACACCCCGATGTTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 896  
 DB 3032 GATACAAACGCGGATGTTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3091  
 QY 897 GGAATTTGCGAGAGTGAAG 956  
 DB 3092 GGAATTTGCGAGAGTGAAG 3151  
 QY 957 GCAACCCGCGCGCTGAG 1016  
 DB 3152 GCAACCCGCGCGCTGAG 3211  
 QY 1017 CTTCAGAGCTGCGCTGAG 1076  
 DB 3212 CTTCAGAGCTGCGCTGAG 3271  
 QY 1077 CAACAAAG 1136  
 DB 3272 CAACAAAG 3331  
 QY 1137 CAGCCCGAGAGATTTCAAG 1196  
 DB 3332 CTCTCCCGAGATTTCAAG 3391  
 QY 1197 CCGCGAGATCGTATCTACAGATGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1256  
 DB 3392 CCGCGAGATCGTATCTACAGATGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3451  
 QY 1257 CGGCGAG 1316  
 DB 3452 AGGCGAG 3511  
 QY 1317 CAGCCCGAG 1376  
 DB 3512 CAGACCCGAG 3571  
 QY 1377 CCGCGAG 1436  
 DB 3572 CCGCGAG 3631  
 QY 1437 CGACATTCAG 1496  
 DB 3632 CGACATTCAG 3691  
 QY 1497 GGTGCGGAG 1556  
 DB 3692 GGTGCGGAG 3751

QY 1557 GACCGAGAGAGCGGAGCTGAGAGTGGCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1616  
 DB 3752 AACCGAGAGAGCGGAGCTGAGAGTGGCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3811  
 QY 1617 CGGCGTGTACTACAG 1676  
 DB 3812 CGGCGTGTACTACAG 3871  
 QY 1677 CGAGTGAACCTTACAG 1736  
 DB 3872 CGAGTGAACCTTACAG 3931  
 QY 1737 CAAGATGGGAG 1796  
 DB 3932 CGGAGTGAAGGGTGGCCGAG 3991  
 QY 1797 CGCGATGAGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1856  
 DB 3992 CACGACCGAGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 4051  
 QY 1857 GAGAGCTGGAG 1916  
 DB 4052 GGAAGCTGGAG 4111  
 QY 1917 GTTGTGAAACACCCCGCTGAG 1976  
 DB 4112 GTTGTGAAACACCCCGCTGAG 4171  
 QY 1977 CGGCGCGAG 2036  
 DB 4172 GGGCGCGAG 4231  
 QY 2037 CGGCTACGTGAG 2096  
 DB 4232 CGGATACGTGAG 4291  
 QY 2097 GAAAGCCGAG 2156  
 DB 4292 GAAAGCCGAG 4351  
 QY 2157 CGTGAACGAG 2216  
 DB 4352 CGTGAACGAG 4411  
 QY 2217 CGAGCTGTGAAACAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2276  
 DB 4412 CGAGCTGTGAAACAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 4471  
 QY 2277 GGTGCGCGCGAG 2336  
 DB 4472 GGTGCGCGCGAG 4531  
 QY 2337 CATCGAG 2396  
 DB 4532 CATCGAG 4596  
 RESULT 15  
 US-09-610-313b-30  
 Sequence 6, Application US/09872733A  
 Patent No. 6636706  
 GENERAL INFORMATION:  
 APPLICANT: The Government of the United States of America, as  
 TITLE OF INVENTION: MOLECULAR CLOTHES WITH MUTATED HIV GAG/POL, SIV GAG AND  
 TITLE OF INVENTION: SIV ENV GENES  
 FILE REFERENCE: 2026-4287US1 HIV GAG/POL, SIV GAG & ENV  
 CURRENT APPLICATION NUMBER: US/09/872,733A  
 CURRENT FILING DATE: 2001-06-01  
 PRIOR APPLICATION NUMBER: PCT/US00/34985  
 PRIOR FILING DATE: 2000-12-22  
 PRIOR APPLICATION NUMBER: 60/173,036  
 PRIOR FILING DATE: 1999-12-23  
 NUMBER OF SEQ ID NOS: 19

SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 6  
LENGTH: 8366  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURES:  
OTHER INFORMATION: Description of Artificial Sequence: DNA sequence  
OTHER INFORMATION: of the construct pCMVgagpolBHKan containing a CMV  
OTHER INFORMATION: promoter, a HIV gag/pol gene and a kanamycin  
OTHER INFORMATION: resistance gene  
US-09-872-733A-6

Query Match 64.5%; Score 1592.8; DB 3; Length 8366;  
Best Local Similarity 80.7%; Pred. No. 3.5e-241;  
Matches 1914; Conservative 0; Mismatches 442; Indels 16; Gaps 4;

QY 14 TGGCCGAGGCGCATGAGCCAGCCACG---GCCAATCTCTGATGAGCGCGCAACT 70  
DB 1857 TGGCCGAGGCGCATGAGCCAGGTCAGAACTCGCGCACTATATGTCAGAGAGGCAACT 1916  
QY 71 TCAAGGGCCCAAGCGCATCATCAAGTCTTCACTGCGGCAAGGAGGGCCGCAATCGCC 130  
DB 1917 TCCGGAACACAGCGAAGATCGTCAAGTCTTCAATTGCGCAAGAGAGGCAACCGCCA 1976  
QY 131 GCAACTGCGCGCCCGCCCGCAAGAGGCTCTGGAATGCGCGCAAGAGGCGCAACAGA 190  
DB 1977 GGAATGCGCGGCGCCCGCGAAGAGGCTGTGGAATGTGAAAGAGAGACCAACAAA 2036  
QY 191 TGAAGACTGCACGAGCGCCAGGCGCAACTTCTTCCGAGAGACCTGGCCCTTCCCGCAG 250  
DB 2037 TGAAGATTGTATCTGAGAGACAGGCTAA-TTTTATGAGGAAGATCTGCGCTTCTTCAAG 2095  
QY 251 GCAAGCGCCCGAGTCTCCCGACGAGCAAGACCGCGCAAGCGCCCAACCGCGAGC 310  
DB 2096 GGAAGCGCAAGGAAATTTCTTCAAGAGCAGACCAAGGCCAACCGCCCAACAGAGAGAGC 2155  
QY 311 TGCAGTGCAGCG-----GACAAACCCCGCAGGAGGCGCGCGCCGAGCGCCAGGCA 364  
DB 2156 TTCAAGTCTGGGGTATAGACAAACATCCCTCTGAGAGCAGAGCCGATAGAACAAAGAA 2215  
QY 365 -----CCCTGAACTTCCCCCAGATCACCTGTGTGACAGCGCCCTGTGTAGCATCAAG 418  
DB 2216 CTGTATCTTTTAACTTCCCTCAGATCACTTCTTGGCAACGACCCCTCTCTCAAGTAAAG 2275  
QY 419 TGGGCGGCGCAGATCAAGAGGCGCTGTGACACCGCGCGCGACAGACACGCTGTGAGG 478  
DB 2276 TCGGGGCGCAACTCAAGAGAGCGCTGTGATACAGAGCAGATATACATGATTAGAAAG 2335  
QY 479 AGATGAGCCTGCGCCGCAAGTGAAGCCCAAGATGATCGCGGCAATCGCGGCTTTCATCA 538  
DB 2336 AATATGATTTTGCAGGAAGATGAAAAACAAAATGATAGGGGGGATCGGGGGCTTTCATCA 2395  
QY 539 AGGTGCGCCAGTACAGACAGATCTGTATCGAGATTTGCGCAAGAGGCAATCGGACCG 598  
DB 2396 AGGTGAGGCAATATACACAGATACATCATTAATCTGTGACATTAACCTATAGGTTAAG 2455  
QY 599 TGTGATGCGGCGCCCGCGTGAACATCATCGCGCGCAACATGTGACCCAGCTGAGGCT 658  
DB 2456 TATTTAGTAGACCTACACCTGTACACATTAATTTGGAAGAAATCTGTTAGCCAGATCGCT 2515  
QY 659 GCACTCTGAATCTTCCCATCAGCCCATCGAACCGTGCCTGTGAAGCTGAAGCCCGCA 718  
DB 2516 GCACTTTGAATCTTCCCATCAGCCCATTTGAGAGGATCGGTCGTAAGTTGAAGCCGGGA 2575  
QY 719 TGAAGCGCCCAAGGTGAAGAGTGGCCCTGACCGAGAGAGATCAAGGCTTGAACCG 778  
DB 2576 TGGACGCGCCCAAGGTCAAGCAATGCGCATGACCAAGAGAGATCAAGGCTTGAAGCG 2635  
QY 779 CCACTGAGAGAGATGAGAGAGAGAGAGATCAACCAAGATGCGGCCCGAGAACCTCT 838  
DB 2636 AATATGTATGACAGATGAGAGAGAGAGAGATCAAGCAAGATCGGGCTCTGAAGACCTCT 2695  
QY 839 ACAAACACCCCGTGTTCGCATCAAGAAAGAGACAGCAACCAAGTGGCGCAAGCTGTGG 898

DB 2696 ACAAACCTCCAGTCTTGTGCATCAAGAAAGAGACAGTACCAAGTGAAGAAAGCTGTGG 2755  
QY 899 ACTTCGCGAGCTGAACAAAGCGACCCAGGACTTCTGAGAGGTCAAGCTGTGGCATATCCCC 958  
DB 2756 ACTTCAGAGAGCTGAACAAAGAGCTGAGAGCTTCTGAGAGGTTCAGCTGTGGCATATCCAC 2815  
QY 959 ACCCGCGCGCTGAG 1018  
DB 2816 ATCCCGTGGGTGAAG 2875  
QY 1019 TGAAGTGCCTCTGAG 1078  
DB 2876 TCTCCGTTCCTTGTGAG 2935  
QY 1079 ACAAG 1138  
DB 2936 ACAAG 2995  
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DB 2996 CACCAAGCATCTTCAAGAGCAGATGACCAAGATCTGAGAGCCCTTCCGCAAGCAAAAC 3055  
QY 1199 CCGAGATCTGTATTTACCAAGTACATGAGAGACTGTACGTGTGGCAGAGCACTTGAAGAT 1258  
DB 3056 CAGACATCTGTATCTATCAATGACATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3115  
QY 1259 GCAGAGACCGCGCGCAAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1318  
DB 3116 GGCAGACAG 3175  
QY 1319 CCCCCAGCAAGAGACACAG 1378  
DB 3176 CACCAAGCAAG 3235  
QY 1379 CCGAGAGTGAACCTGTGAG 1438  
DB 3236 CTGACAGTGAACAGTGAAG 3295  
QY 1439 ACATCCAG 1498  
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QY 1499 TGCAGAGCTGTGAG 1558  
DB 3356 TTAGGAGAGCTGTGAG 3415  
QY 1559 CCGAG 1618  
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QY 1619 GCGTGTACTAG 1678  
DB 3476 GAGGTACTAG 3535  
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DB 3536 AATGAAGCTTACAGATCTTACAG 3595  
QY 1739 AGATGCGAG 1798  
DB 3596 GAGATGAG 3655  
QY 1799 CCAATGAGAGAGATGTGATCTGTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1858  
DB 3656 CCAAGAGAGAGATGTGATCTGTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3715  
QY 1859 AGACTGTGAG 1918  
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QY 1919 TCGTGAACACCCCGCTGTGTGAG 1978

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QY	1979	GCGCCAGACCTTCTTACGTGAGACGGCCAAACCGAGACCAAGATCGGCAAGGCCG	2038
Db	3836	GAGCAGAGACCTTCTTACGTGATGGGGCAGCCAAACAGGAGACCAAGCTGGGCAAGCCAG	3895
QY	2039	GCTACGTGACCGACCGGGCCGGCAGAAAGATGCTGAGCCTGACCGAGACCAACCAACGA	2098
Db	3896	GCTACGTGACCAACCGAGAGACGACAGAAAGTGTGACCTGTGACACCAACCAACGAGA	3955
QY	2099	AGACCGAGCTGAGAGCCATCCAGCTGGCCCTTGCAGAGACAGCGGCGAGAGGTGAACATCG	2158
Db	3956	AGACTGAGCTGCAAGCCATCTTACCTAGCTTGCAGAGACAGCGGACTGGAAGTGAACATCG	4015
QY	2159	TGACCGACAGCCAGTACGCCCTTGGGCAATCATCCAGGCCCAAGCCGACCAAGACGAGAGCG	2218
Db	4016	TGACAGACTCACAGTACGCACTGGGCAATCATCCAGCACCAACCAACCAATCCGAGTCAG	4075
QY	2219	AGCTGTGTAACCAATCATTCAGAGAGCTGATCAAGAGAGAGAGGTGTACTTGAGCTGGG	2278
Db	4076	AGCTGTGTAACCAATCATTCAGAGAGCTGATCAAGAGAGAGAGGTGTACTTGAGCTGGG	4135
QY	2279	TGCCCGCCCAACAGGGCATTCGGCCGCAAGAGACAGATCGACAGCTGTGAGCAAGGGCA	2338
Db	4136	TACCAAGCAACAAAGGAATTGGAGGAATGAACAAAGTAGATTAATTAGTCAGTGCTGGGA	4195
QY	2339	TCCGCAAGGTGCTGTCTTCTGAGCGGCATCGAT	2370
Db	4196	TCCGGAAGGTGCTGTCTTCTGAGCGGCATCGAT	4227

Search completed: December 30, 2005, 09:18:18  
 Job time : 435.699 secs

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GenCore version 5.1.6  
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OM nucleic - nucleic search, using SW model

Run on: December 30, 2005, 07:51:44; Search time 1730.2 Seconds  
(without alignments)  
11800.393 Million cell updates/sec

Title: US-09-610-313B-30

Perfect score: 2469  
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Scoring table: IDENTITY NUC  
Gapop 10.0, Gapext 1.0

Searched: 9793542 seqs, 4134689005 residues

Total number of hits satisfying chosen parameters: 19587084

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

Database: Published Applications NA Main:  
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10: /cgn2\_6/ptodata/1/pubpna/US11\_PUBCOMB.seq.\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2469	100.0	2469	US-09-899-575-30	Sequence 30, Appl
2	2457	99.5	2457	US-10-190-435-45	Sequence 45, Appl
3	2457	99.5	2457	US-10-190-305A-39	Sequence 39, Appl
4	2442.2	98.9	2457	US-09-899-575-31	Sequence 31, Appl
5	2434.6	98.6	2457	US-10-190-435-44	Sequence 44, Appl
6	2434.6	98.6	2457	US-10-190-305A-38	Sequence 38, Appl
7	2415.4	97.8	2457	US-09-899-575-32	Sequence 32, Appl
8	2401.8	97.3	2445	US-10-190-435-43	Sequence 43, Appl
9	2401.8	97.3	2445	US-10-190-305A-37	Sequence 37, Appl
10	2394.8	97.0	3930	US-10-190-435-9	Sequence 9, Appl
11	2393.2	96.9	3930	US-10-190-435-10	Sequence 10, Appl
12	2393.2	96.9	3930	US-10-190-435-11	Sequence 11, Appl
13	2393.2	96.9	5184	US-10-190-435-58	Sequence 58, Appl
14	2393.2	96.9	5184	US-10-190-305A-82	Sequence 82, Appl
15	2362.8	95.7	3531	US-10-190-435-13	Sequence 13, Appl
16	2361.2	95.6	3537	US-10-190-435-14	Sequence 14, Appl
17	2361.2	95.6	3537	US-10-190-435-15	Sequence 15, Appl
18	2360.2	95.6	5145	US-10-190-435-12	Sequence 12, Appl
19	2360.2	95.6	5145	US-10-190-305A-12	Sequence 12, Appl
20	2349.4	95.2	3624	US-10-190-435-47	Sequence 47, Appl
21	2349.4	95.2	3624	US-10-190-305A-41	Sequence 41, Appl
22	2301.8	93.2	3607	US-10-190-435-48	Sequence 48, Appl
23	2301.8	93.2	3607	US-10-190-305A-42	Sequence 42, Appl

24	2283.6	92.5	3597	6	US-10-190-435-46	Sequence 46, Appl
25	2283.6	92.5	3597	6	US-10-190-305A-40	Sequence 40, Appl
26	2149.6	87.1	2472	6	US-10-241-009-32	Sequence 32, Appl
27	2149.6	87.1	2472	6	US-10-190-434B-32	Sequence 32, Appl
28	2149.6	87.1	2472	6	US-10-190-305A-34	Sequence 34, Appl
29	2149.6	87.1	2472	6	US-10-976-619-32	Sequence 32, Appl
30	2121.2	85.9	2466	6	US-10-241-009-31	Sequence 31, Appl
31	2121.2	85.9	2466	6	US-10-190-434B-31	Sequence 31, Appl
32	2121.2	85.9	2466	6	US-10-190-305A-33	Sequence 33, Appl
33	2121.2	85.9	2466	6	US-10-976-619-31	Sequence 31, Appl
34	2094.4	84.8	2460	6	US-10-241-009-30	Sequence 30, Appl
35	2094.4	84.8	2460	6	US-10-190-434B-30	Sequence 30, Appl
36	2094.4	84.8	2460	6	US-10-190-305A-32	Sequence 32, Appl
37	2094.4	84.8	2460	6	US-10-976-619-30	Sequence 30, Appl
38	2093.4	84.8	3564	6	US-10-241-009-13	Sequence 13, Appl
39	2093.4	84.8	3564	6	US-10-241-009-14	Sequence 14, Appl
40	2093.4	84.8	3564	6	US-10-190-434B-13	Sequence 13, Appl
41	2093.4	84.8	3564	6	US-10-190-434B-14	Sequence 14, Appl
42	2093.4	84.8	3564	9	US-10-976-619-13	Sequence 13, Appl
43	2093.4	84.8	3564	9	US-10-976-619-14	Sequence 14, Appl
44	2092.8	84.8	4716	6	US-10-190-435-17	Sequence 17, Appl
45	2092.8	84.8	4716	6	US-10-190-305A-13	Sequence 13, Appl

## ALIGNMENTS

RESULT 1  
US-09-899-575-30  
Sequence 30, Application US/09899575  
Publication No. US20030223961A1  
GENERAL INFORMATION:  
APPLICANT: Zur Megede, Jan  
APPLICANT: Barnett, Susan W.  
APPLICANT: Egnelbrecht, Susan  
APPLICANT: van Rensburg, Estrelita Janse  
TITLE OF INVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C  
FILE REFERENCE: P01631.102  
CURRENT APPLICATION NUMBER: US/09/899,575  
CURRENT FILING DATE: 2001-07-05  
PRIOR APPLICATION NUMBER: 09/475,704  
PRIOR FILING DATE: 1999-12-30  
NUMBER OF SEQ ID NOS: 135  
SOFTWARE: Patent In Ver. 2.0  
SEQ ID NO 30  
LENGTH: 2469  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURES:  
OTHER INFORMATION: Description of Artificial Sequence: PR975(+)  
US-09-899-575-30

Query Match 100.0%; Score 2469; DB 3; Length 2469;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2469; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 GTGAGCCGACCATGCGGAGGCGGATGAGCGGACGCGGCAATCTGATGAG 60  
DB 1 GTGAGCCGACCATGCGGAGGCGGATGAGCGGACGCGGCAATCTGATGAG 60  
QY 61 CGGAGCACTTCAAGGGCCGAGGCGGATGAGCGGACGCGGCAATCTGATGAG 120  
DB 61 CGGAGCACTTCAAGGGCCGAGGCGGATGAGCGGACGCGGCAATCTGATGAG 120  
QY 121 CACATGCGGCGACTGCGGCGGCGGCGGCGGAGAGGCTGCGAGAGTGGCAAGAG 180  
DB 121 CACATGCGGCGACTGCGGCGGCGGCGGCGGAGAGGCTGCGAGAGTGGCAAGAG 180  
QY 181 GGCACCAATGAGAGATGAGCGGAGCGGCAAGGCACTTCTTCCGAGAGCTTGGCC 240  
DB 181 GGCACCAATGAGAGATGAGCGGAGCGGCAAGGCACTTCTTCCGAGAGCTTGGCC 240

OY	241	TTCCCCCAGGGCAGAGCCCGGAGATTCCCAAGCAGAGCAACCCGGCCAAACAGCCCAAC	300
Db	241	TTCCCCCAGGGGCAAGGCCCGGAGTTCCCAAGCAGAGCAACCCGGCCAAACAGCCCAAC	300
OY	301	AGCCGCGAGCTGCAGGTGGCGGCGACAACCCCGCAGCAGAGGCGCGCGCAGAGCCAG	360
Db	301	AGCCGCGAGCTGCAGGTGGCGGCGACAACCCCGCAGCAGAGGCGCGCGCAGAGCCAG	360
OY	361	GGCACCCTGAACTTCCCCAGATCAACCTGTGGCAGCCGCCCTGTGTGATCAAGGTG	420
Db	361	GGCACCCTGAACTTCCCCAGATCAACCTGTGGCAGCCGCCCTGTGTGATCAAGGTG	420
OY	421	GGCGGCGAGATCAAGAGAGCCCTGTCTGACACCCGGCGCCAGCAGACCTGTGTGAGAG	480
Db	421	GGCGGCGAGATCAAGAGAGCCCTGTCTGACACCCGGCGCCAGCAGACCTGTGTGAGAG	480
OY	481	ATGAGCCCTGGCCCGGAGATGGAGAGCCCAAGATGATCGGCGGCGATCGGCGGCTTATCAAG	540
Db	481	ATGAGCCCTGGCCCGGAGATGGAGAGCCCAAGATGATCGGCGGCGATCGGCGGCTTATCAAG	540
OY	541	GTGCGCCAGTACGACCAAGTCTTGATCGAGATCTGCGGCAAGAGGCAATCGGCAACCGTG	600
Db	541	GTGCGCCAGTACGACCAAGTCTTGATCGAGATCTGCGGCAAGAGGCAATCGGCAACCGTG	600
OY	601	CTGATCGGCCCCCAACCCCGGTGAATCATTCGGCGGCAATGTCTGACCCGATCGGCTGG	660
Db	601	CTGATCGGCCCCCAACCCCGGTGAATCATTCGGCGGCAATGTCTGACCCGATCGGCTGG	660
OY	661	ACCCGGAACCTTCCCATCAGCCGCCCATCGAGCCGTCGCCCTGTGAACCTGAAGCCCGGCAATG	720
Db	661	ACCCGGAACCTTCCCATCAGCCGCCCATCGAGCCGTCGCCCTGTGAACCTGAAGCCCGGCAATG	720
OY	721	GACGCGCCCAAGGTGAAGCAGTGGCCCTGACCCGAGAGAGATCAAGGCTCTGAACCGCC	780
Db	721	GACGCGCCCAAGGTGAAGCAGTGGCCCTGACCCGAGAGAGATCAAGGCTCTGAACCGCC	780
OY	781	ATCTGCGAGAGATGAGAGAGGCGCAAGATCAACCAAGATGCGCCCGAGAACCCCTTAC	840
Db	781	ATCTGCGAGAGATGAGAGAGGCGCAAGATCAACCAAGATGCGCCCGAGAACCCCTTAC	840
OY	841	AAACACCCCGGTGTCGCAATCAAGAGAGAGCACAACAAGTGGCGCAAGCTGTGTGAC	900
Db	841	AAACACCCCGGTGTCGCAATCAAGAGAGAGCACAACAAGTGGCGCAAGCTGTGTGAC	900
OY	901	TTCCGCGAGCTGAACAAGCGCACCCAGAGACTTCTGGAGGTGCAGCTGTGGCATCCGCCAC	960
Db	901	TTCCGCGAGCTGAACAAGCGCACCCAGAGACTTCTGGAGGTGCAGCTGTGGCATCCGCCAC	960
OY	961	CCCGCGGCGCTGAAGAAGAGAGAGCGTGAACCTGTGTGAGCTGTGGCGAGCGCTTACTTC	1020
Db	961	CCCGCGGCGCTGAAGAAGAGAGAGCGTGAACCTGTGTGAGCTGTGGCGAGCGCTTACTTC	1020
OY	1021	AGCGTGGCCCTGGAGAGAGACTTCCGCAAGTACACCGCTTCAACATCCCAAGCATCAAC	1080
Db	1021	AGCGTGGCCCTGGAGAGAGACTTCCGCAAGTACACCGCTTCAACATCCCAAGCATCAAC	1080
OY	1081	AAAGAGACCCCGCGCATCGCTACCAAGTACAAGTGTGTCGCCCAAGGCTTGAAGAGGCAAGC	1140
Db	1081	AAAGAGACCCCGCGCATCGCTACCAAGTACAAGTGTGTCGCCCAAGGCTTGAAGAGGCAAGC	1140
OY	1141	CCGAGCATCTTCCAGAGCAGATGACCAAGATCTTGAGAGCCCTTCCGCGCGCGCAACCC	1200
Db	1141	CCGAGCATCTTCCAGAGCAGATGACCAAGATCTTGAGAGCCCTTCCGCGCGCGCAACCC	1200
OY	1201	GAGATCTGTGATTTACCAATGACATGGAACCACTGTACGTGGGAGAGGACCTTGAGATCGGG	1260
Db	1201	GAGATCTGTGATTTACCAATGACATGGAACCACTGTACGTGGGAGAGGACCTTGAGATCGGG	1260
OY	1261	CAGCACCGGCGCAAGATCGAGAGGCTGGCGCAGACACTGTGCGCTTGAGGACTTTCACACAC	1320
Db	1261	CAGCACCGGCGCAAGATCGAGAGGCTGGCGCAGACACTGTGCGCTTGAGGACTTTCACACAC	1320
OY	1321	CCCGCAAGAGACACACAGAGAGCCCGCTTCTGTGTGATGGGCTTACGAGCTGCACCC	1380

Db	1321	CCCGACAAAGAGCACAGAGAGAGCCCCCTTTCCTGTGGATGGGCTACAGACTGACCCC	1380
Qy	1381	GACAAAGTGAACCGTGCACAGCCCATCGAGCTGGCCGAGAGAGAGAGCTGAGCCGTGAACGAC	1440
Db	1381	GACAAAGTGAACCGTGCACAGCCCATCGAGCTGGCCGAGAGAGAGAGCTGAGCCGTGAACGAC	1440
Qy	1441	ATCCGAAGAGCTGTGGGGCAGCTGAACCTGGGCCAGCCAGATCTACCCCGGACATCAAGGTG	1500
Db	1441	ATCCGAAGAGCTGTGGGGCAGCTGAACCTGGGCCAGCCAGATCTACCCCGGACATCAAGGTG	1500
Qy	1501	CGCCAGCTGTGGCAAGCTGTGGGGCGGCGCAAGGCGCCGAGACATCTGAGCCCTGAGC	1560
Db	1501	CGCCAGCTGTGGCAAGCTGTGGGGCGGCGCAAGGCGCCGAGACATCTGAGCCCTGAGC	1560
Qy	1561	GAGAGAGCCGAGCTGAGAGCTGGCCGAGAACCCGACGAGATCTTGCCGCGAGGCCGTGACCGGC	1620
Db	1561	GAGAGAGCCGAGCTGAGAGCTGGCCGAGAACCCGACGAGATCTTGCCGCGAGGCCGTGACCGGC	1620
Qy	1621	GTGTACTACGACCCCGACGAGAGACCTGTGGCCGAGATCCAGAAACAGAGGCCACGACGAC	1680
Db	1621	GTGTACTACGACCCCGACGAGAGACCTGTGGCCGAGATCCAGAAACAGAGGCCACGACGAC	1680
Qy	1681	TGGACCTTACCGAGATCTTACAGAGACCCCTTCAAGAACCTGAAGACCGGGCAATGACGCAAG	1740
Db	1681	TGGACCTTACCGAGATCTTACAGAGACCCCTTCAAGAACCTGAAGACCGGGCAATGACGCAAG	1740
Qy	1741	ATGCGCACCCGCCACACCAACGAGGTGAGAGAGCTGACCGAGGCCGTGGCAGAAAGATCGGC	1800
Db	1741	ATGCGCACCCGCCACACCAACGAGGTGAGAGAGCTGACCGAGGCCGTGGCAGAAAGATCGGC	1800
Qy	1801	ATGAGAGAGCATCTGTGATCTTGGGGCAGAGCCCCCAAGTTCCGCCTGGCCATCCAGAAAGAG	1860
Db	1801	ATGAGAGAGCATCTGTGATCTTGGGGCAGAGCCCCCAAGTTCCGCCTGGCCATCCAGAAAGAG	1860
Qy	1861	ACCTGGAGAGACCTGTGTGAACCGACCTACCTGGAGAGCCACCTGGATCCCGGATGGGAGGTTT	1920
Db	1861	ACCTGGAGAGACCTGTGTGAACCGACCTACCTGGAGAGCCACCTGGATCCCGGATGGGAGGTTT	1920
Qy	1921	GTGAACACCCCCCCTGTGTGAAGCTGTGATACCAAGCTGAGAGAGAGGCCATCATCGGC	1980
Db	1921	GTGAACACCCCCCCTGTGTGAAGCTGTGATACCAAGCTGAGAGAGAGGCCATCATCGGC	1980
Qy	1981	GCCGAGACCTTCTACGTGAGCGGCGCGCCACCGCAGAGACCAAGATCGGCAAGCGCGGC	2040
Db	1981	GCCGAGACCTTCTACGTGAGCGGCGCGCCACCGCAGAGACCAAGATCGGCAAGCGCGGC	2040
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Db	2041	TACGTGACCCGACCGGGGCGCGCAGAAAGTCTTGAGCCGTGACCGAGACCAACCAAGAG	2100
Qy	2101	ACCGAGCTGAGGACCATCATCACTGAGCTGGCCCTGGACGAGACGCGCACGAGGTGAACATCTTG	2160
Db	2101	ACCGAGCTGAGGACCATCATCACTGAGCTGGCCCTGGACGAGACGCGCACGAGGTGAACATCTTG	2160
Qy	2161	ACCGACAGCCAGTACGCGCTTGGGACATCATCCAGGCGCCAGCCGACCAAGAGCGAGAGCGAG	2220
Db	2161	ACCGACAGCCAGTACGCGCTTGGGACATCATCCAGGCGCCAGCCGACCAAGAGCGAGAGCGAG	2220
Qy	2221	CTGGTGAACCAAGATCATTCGAGCAGCTGATCAAGAAAGGAAAGGTGTACTGAGCTGGGTG	2280
Db	2221	CTGGTGAACCAAGATCATTCGAGCAGCTGATCAAGAAAGGAAAGGTGTACTGAGCTGGGTG	2280
Qy	2281	CCCGGCCACAGAGGAGCATGAGCGGCGACAGAGCAGATCCGACAGCTGTGTGAGCAAGGACATC	2340
Db	2281	CCCGGCCACAGAGGAGCATGAGCGGCGACAGAGCAGATCCGACAGCTGTGTGAGCAAGGACATC	2340
Qy	2341	CGCAAGGTGCTGTTCTGTGAGCGGACGAGTGAATGGCCGACATCGATCTACAGATACATGGAC	2400
Db	2341	CGCAAGGTGCTGTTCTGTGAGCGGACGAGTGAATGGCCGACATCGATCTACAGATACATGGAC	2400
Qy	2401	GACCTGTACTGTGGGACGCGCGGCTTGAATCGATTAAAGCTTCCCGGGGCTTAGCAC	2460
Db	2401	GACCTGTACTGTGGGACGCGCGGCTTGAATCGATTAAAGCTTCCCGGGGCTTAGCAC	2460

Db 2401 GACCTGATCGTGGCAGCGCGCCCTTAGATCGATTAAAGCTTCCCGGGCTAGCAC 2460  
Qy 2461 GGTGAATTC 2469  
Db 2461 GGTGAATTC 2469

RESULT 2  
US-10-190-435-45  
; Sequence 45, Application US/10190435  
; Publication No. US20030143248A1  
; GENERAL INFORMATION:  
; APPLICANT: ZUR MEGEDE, Jan  
; APPLICANT: BARNETT, Susan W.  
; APPLICANT: LIAN, Ying  
; APPLICANT: ENGBERCHT, Susan  
; APPLICANT: VAN RENSBURG, Beirelita J.  
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
; FILE REFERENCE: P18133.003 / 2302-18133  
; CURRENT APPLICATION NUMBER: US/10/190,435  
; NUMBER OF SEQ ID NOS: 319  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO: 45  
; LENGTH: 2457  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: p2Polopt\_C  
US-10-190-435-45

Query Match 99.5%; Score 2457; DB 6; Length 2457;  
Best Local Similarity 100.0%; Pred No. 0;  
Matches 2457; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 7 GCCACCATGCGCGAGGCGCATAGCCAGGCGCACCGAGCGCAATCTGTATGACGGCAGC 66  
Db 1 GCCACCATGCGCGAGGCGCATAGCCAGGCGCACCGAGCGCAATCTGTATGACGGCAGC 60  
Qy 67 AACCTTAAGAGGCGCCCAAGGCGCATCATCAAGTGTCTTAAGTGGCGAAGAGGGCCATC 126  
Db 61 AACCTTAAGAGGCGCCCAAGGCGCATCATCAAGTGTCTTAAGTGGCGAAGAGGGCCATC 120  
Qy 127 GCCCGCACTGCGCGCGCGCGCGCGCAAGAGGCGTGTGAGAGTGGCGGCAAGAGGCGCAC 186  
Db 121 GCCCGCACTGCGCGCGCGCGCGCGCGCAAGAGGCGTGTGAGAGTGGCGGCAAGAGGCGCAC 180  
Qy 187 CAGATGAAGATCTCAACCGAGCGCGCAACCTTCTTCGCGAGAGACCTGGCTTCC 246  
Db 181 CAGATGAAGATCTCAACCGAGCGCGCAACCTTCTTCGCGAGAGACCTGGCTTCC 240  
Qy 247 CAGGCGAAGGCGCGCGAGTTCCTCCAGAGAGAGAGACCGCGCGCAACGCGCGCGCGCG 306  
Db 241 CAGGCGAAGGCGCGCGAGTTCCTCCAGAGAGAGAGACCGCGCGCAACGCGCGCGCGCG 300  
Qy 307 GAGCTGCAAGTGGCGCGCGCAACCGCGCGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 366  
Db 301 GAGCTGCAAGTGGCGCGCGCAACCGCGCGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 360  
Qy 367 CTGAATCTCCCGCAAGTCAACCTGTGTGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 426  
Db 361 CTGAATCTCCCGCAAGTCAACCTGTGTGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 420  
Qy 427 CAGATCAAGAGGCGCGTGTGTGAGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 486  
Db 421 CAGATCAAGAGGCGCGTGTGTGAGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 480  
Qy 487 CTGCGCGCGCAAGTGGAGAGCGCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 546  
Db 481 CTGCGCGCGCAAGTGGAGAGCGCGCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCGCGCG 540  
Qy 547 CAGTACGACCAAGATCTGTATGAGATCTGTGCGCGCAAGAGGCGCATCGGCAACGCGTGTATC 606

Db 541 CAGTACGACCAAGATCTGTATGAGATCTGTGCGCGCAAGAGGCGCATCGGCAACGCGTGTATC 600  
Qy 607 GGGCCCAACCGCGTGAACATCATCGCGCGCAACATGTGACCGCGCGCGCGCGCGCGCGCG 666  
Db 601 GGGCCCAACCGCGTGAACATCATCGCGCGCAACATGTGACCGCGCGCGCGCGCGCGCGCG 660  
Qy 667 AACCTTCCCATCAACCGCGCATGAGACCGTGTGCGCGTGAAGCGCGCGCGCGCGCGCGCGCG 726  
Db 661 AACCTTCCCATCAACCGCGCATGAGACCGTGTGCGCGTGAAGCGCGCGCGCGCGCGCGCG 720  
Qy 727 CCAAGGTGAAGAGTGGCGCGCTGTGACCGAGAGAGATCAAGCGCGCTTGAACCGCATCTGC 786  
Db 721 CCAAGGTGAAGAGTGGCGCGCTGTGACCGAGAGAGATCAAGCGCGCTTGAACCGCATCTGC 780  
Qy 787 GAGGAGATGAGAGAGAGAGAGATCAAGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 846  
Db 781 GAGGAGATGAGAGAGAGAGAGATCAAGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 840  
Qy 847 CCGGTGTGCGCATCAAG 906  
Db 841 CCGGTGTGCGCATCAAG 900  
Qy 907 GAGCTGAACAGCGCGCACCGAGATCTGTGAGAGTGTGAGTGGCGCATCGCGCGCGCGCGCG 966  
Db 901 GAGCTGAACAGCGCGCACCGAGATCTGTGAGAGTGTGAGTGGCGCATCGCGCGCGCGCGCG 960  
Qy 967 GGCCTGAAG 1026  
Db 961 GGCCTGAAG 1020  
Qy 1027 CCGCTGAGAGAGATCTTCGCGAGAGTCAACCGCGCTTCAACATCCAGAGATCAACAGAG 1086  
Db 1021 CCGCTGAGAGAGATCTTCGCGAGAGTCAACCGCGCTTCAACATCCAGAGATCAACAGAG 1080  
Qy 1087 ACCCGCGGATCGCTCAACAGTCAACAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1146  
Db 1081 ACCCGCGGATCGCTCAACAGTCAACAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1140  
Qy 1147 ATCTTCAAGAGAGAGATGACCAAGATCTGTGAGCGCTTCCGCGCGCGCGCGCGCGCGAG 1206  
Db 1141 ATCTTCAAGAGAGAGATGACCAAGATCTGTGAGCGCTTCCGCGCGCGCGCGCGCGCGAG 1200  
Qy 1207 GTGATCTACAGTACATGAG 1266  
Db 1201 GTGATCTACAGTACATGAG 1260  
Qy 1267 CCGCGCAAGATGAGAGAGAGTGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1326  
Db 1261 CCGCGCAAGATGAGAGAGAGTGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1320  
Qy 1327 AAGAGAGACCAAGAGAGAGCGCGCTTCTGTGAGTGGAGTGAAGCTGACCGCGAGAG 1386  
Db 1321 AAGAGAGACCAAGAGAGAGCGCGCTTCTGTGAGTGGAGTGAAGCTGACCGCGAGAG 1380  
Qy 1387 TGAACCTGACCGCATGAGCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1446  
Db 1381 TGAACCTGACCGCATGAGCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1440  
Qy 1447 AAGCTGTGGAGAGAGTGAAGTGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1506  
Db 1441 AAGCTGTGGAGAGAGTGAAGTGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1500  
Qy 1507 CTGTGCAAGCTGTGCG 1566  
Db 1501 CTGTGCAAGCTGTGCG 1560  
Qy 1567 GCGGAGCTGAGAGTGGCGAG 1626  
Db 1561 GCGGAGCTGAGAGTGGCGAG 1620  
Qy 1627 TAGAGCCCAAGAGAGAGCTGTGTGCGAGAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAG 1686



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Db      1621 TACGACCCGACGAAGACCTGTGTGGCCGAGATCCAGAAAGAGGCGCACGACCACTGTGAC 1680
Qy      1687 TACCAGATCTACGAGAGACCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGATGGC 1746
Db      1681 TACCAGATCTACGAGAGACCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGATGGC 1740
Qy      1747 ACCGCCCAACCAACGAGCTGAAGAGAGCTGACCCGAGCCGTGCAAGAGATGGCAATGGAG 1806
Db      1741 ACCGCCCAACCAACGAGCTGAAGAGAGCTGACCCGAGCCGTGCAAGAGATGGCAATGGAG 1800
Qy      1807 AGCATTCGTATCTGTGGGCAAGACCCCAAGTTCGGCCCTGCCATCCAGAAAGAGACCTGG 1866
Db      1801 AGCATTCGTATCTGTGGGCAAGACCCCAAGTTCGGCCCTGCCATCCAGAAAGAGACCTGG 1860
Qy      1867 GAGACTGTGTGAGCCGACTACTGTGAGAGGCGACCTGTGATCCCGAGTGGAGTGTGTGAC 1926
Db      1861 GAGACTGTGTGAGCCGACTACTGTGAGAGGCGACCTGTGATCCCGAGTGGAGTGTGTGAC 1920
Qy      1927 ACCCCCCCTGTGTGAAGCTGTGTGACGAGCTGGAAGAAAGAGCCCATCATCGGCGCGAG 1986
Db      1921 ACCCCCCCTGTGTGAAGCTGTGTGACGAGCTGGAAGAAAGAGCCCATCATCGGCGCGAG 1980
Qy      1987 ACCTTCTACTGTGAGAGGCGCGCCCAACCTGCGAGACCAAGATCGGCAAGGCGGCTACTG 2046
Db      1981 ACCTTCTACTGTGAGAGGCGCGCCCAACCTGCGAGACCAAGATCGGCAAGGCGGCTACTG 2040
Qy      2047 ACCGACCGGCGCGCGCAGAAAGTCTGTGAGCTGTGACCGAGACCAACCAAGAGAGCGAG 2106
Db      2041 ACCGACCGGCGCGCGCAGAAAGTCTGTGAGCTGTGACCGAGACCAACCAAGAGAGCGAG 2100
Qy      2107 CTGCAAGCCATCGAGCTGTGAGCTGTGAGAGAGAGGAGGAGTGTGAGTGTGAGTGTGAG 2166
Db      2101 CTGCAAGCCATCGAGCTGTGAGCTGTGAGAGAGAGGAGGAGTGTGAGTGTGAGTGTGAG 2160
Qy      2167 AGCCAGTACGCGCTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAG 2226
Db      2161 AGCCAGTACGCGCTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAG 2220
Qy      2227 AACCGATCATCGAGCAGCTGTGATCAAGAAAGAGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAG 2286
Db      2221 AACCGATCATCGAGCAGCTGTGATCAAGAAAGAGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAG 2280
Qy      2287 CACAAGGCGATCGGCGGCAAGAGCAGATCGACAGAGCTGTGAGAGCAAGGCGATCCGCAAG 2346
Db      2281 CACAAGGCGATCGGCGGCAAGAGCAGATCGACAGAGCTGTGAGAGCAAGGCGATCCGCAAG 2340
Qy      2347 GTGCTGTCTGTGAGCGCATGTGATGGCGGATGTGATCTACAGTACATGAGCAACCTG 2406
Db      2341 GTGCTGTCTGTGAGCGCATGTGATGGCGGATGTGATCTACAGTACATGAGCAACCTG 2400
Qy      2407 TACGTTGGGCAAGCGGCGGCTTGAAGATGATTTAAAGCTTCCCGGGGCTAGCACCGGT 2463
Db      2401 TACGTTGGGCAAGCGGCGGCTTGAAGATGATTTAAAGCTTCCCGGGGCTAGCACCGGT 2457

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# RESULT 3

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US-10-190-305A-39
; Sequence 39, Application US/10190305A
; Publication No. US20030198621A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARRETT, Susan
; APPLICANT: LIAN, Ying
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
; FILE REFERENCE: 2302-18702 / 18702.002
; CURRENT APPLICATION NUMBER: US/10/190,305A
; NUMBER OF SEQ ID NOS: 93
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 39
; LENGTH: 2457
; TYPE: DNA

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; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: p2Poliopt_C
US-10-190-305A-39
Query Match 99.5%; Score 2457; DB 6; Length 2457;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2457; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
7 GCCACATGCGCGGAGGCGCATGAGCCAGGCGCACCGGCGCAATCTGTATGACGCGAGC 66
1 GCCACATGCGCGGAGGCGCATGAGCCAGGCGCACCGGCGCAATCTGTATGACGCGAGC 60
Qy 67 AACTTCAAGGGCCCCAAGCGCATCATAGTGTCTTCAACTGTGGGCAAGAGAGGCGCATC 126
Db 61 AACTTCAAGGGCCCCAAGCGCATCATAGTGTCTTCAACTGTGGGCAAGAGAGGCGCATC 120
Qy 127 GCCCGCAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 186
Db 121 GCCCGCAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 180
Qy 187 CAGATGAAGGACTGACACGAGCGCGCAGGCGCAACTTCTTCCGCGAGAGACTGTGCTCC 246
Db 181 CAGATGAAGGACTGACACGAGCGCGCAGGCGCAACTTCTTCCGCGAGAGACTGTGCTCC 240
Qy 247 CAGGCGCAAGGCGCGCGAGTTCGCCAGCGAGCAACCGGCGCAACGCGCGCAACGCGCGC 306
Db 241 CAGGCGCAAGGCGCGCGAGTTCGCCAGCGAGCAACCGGCGCAACGCGCGCAACGCGCGC 300
Qy 307 GAGCTGAGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 366
Db 301 GAGCTGAGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 360
Qy 367 CTGAACCTTCCCCGAGATCACTGTGTGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 426
Db 361 CTGAACCTTCCCCGAGATCACTGTGTGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 420
Qy 427 CAGATCAAGAGGCGCTGTGTGAGACCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 486
Db 421 CAGATCAAGAGGCGCTGTGTGAGACCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 480
Qy 487 CTGCGCGCGAGTGAAGGCCCAAGATGATCGGCGCGCATCGGCGCTTCAATAAGTGGC 546
Db 481 CTGCGCGCGAGTGAAGGCCCAAGATGATCGGCGCGCATCGGCGCTTCAATAAGTGGC 540
Qy 547 CAGTACGACCGAGTCTGTGATGTGAGTGTGCGGCAAGAGGCGCATCGGCAACGCTGTATC 606
Db 541 CAGTACGACCGAGTCTGTGATGTGAGTGTGCGGCAAGAGGCGCATCGGCAACGCTGTATC 600
Qy 607 GCGCCACCGCGGTGAACATCATCGGCGCGCAACATGTGACCCAGCTGGGCTGACCTTG 666
Db 601 GCGCCACCGCGGTGAACATCATCGGCGCGCAACATGTGACCCAGCTGGGCTGACCTTG 660
Qy 667 AACTTCCCATCAGCCCATCGAGACGCGTGCCTGTGAAGCTGAAGCCCGGCGATGAGCGG 726
Db 661 AACTTCCCATCAGCCCATCGAGACGCGTGCCTGTGAAGCTGAAGCCCGGCGATGAGCGG 720
Qy 727 CCCAAGGTGAAGCGATGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 786
Db 721 CCCAAGGTGAAGCGATGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 780
Qy 787 GAGGAGTGAAGAGAGGAGCAAGTCAACCAAGTGGCGCGCAAGCTGTGAGCTTCCG 846
Db 781 GAGGAGTGAAGAGAGGAGCAAGTCAACCAAGTGGCGCGCAAGCTGTGAGCTTCCG 840
Qy 847 CCGGTGTTCGCGCATCAAGAAAGAGAGCAAGCAAGTGGCGCGCAAGCTGTGAGCTTCCG 906
Db 841 CCGGTGTTCGCGCATCAAGAAAGAGAGCAAGCAAGTGGCGCGCAAGCTGTGAGCTTCCG 900
Qy 907 GAGCTGAACAAAGCGCACCAAGAGCTTCTGTGAGAGTGTGAGCTGTGAGCTTCCGCGG 966
Db 901 GAGCTGAACAAAGCGCACCAAGAGCTTCTGTGAGAGTGTGAGCTGTGAGCTTCCGCGG 960

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Qy 967 GGCCTGAAGAAAGAAAGAGCTGACCGTGTGACGTTGGGCGACGCTTACTTACGCTG 1026
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Db 961 GGCCTGAAGAAAGAAAGAGCTGACCGTGTGACGTTGGGCGACGCTTACTTACGCTG 1020
Qy 1027 CCCCCTGACGAGGACTTCCCGAAGTACACCGCTTCAACATCCCGAGATCAACAAAGAG 1086
    |||
Db 1021 CCCCCTGACGAGGACTTCCCGAAGTACACCGCTTCAACATCCCGAGATCAACAAAGAG 1080
Qy 1087 ACCCCGCGCATCCGCTACCAAGTACCAAGTCTGAGCCCGGCTGAGAGGCGAGCCCGAGC 1146
    |||
Db 1081 ACCCCGCGCATCCGCTACCAAGTACCAAGTCTGAGCCCGGCTGAGAGGCGAGCCCGAGC 1140
Qy 1147 ATCTTCAAGAGCAGCATGACCAAGATCCTGAGCCCTTCCGCGCCGCAACCCCGAGATC 1206
    |||
Db 1141 ATCTTCAAGAGCAGCATGACCAAGATCCTGAGCCCTTCCGCGCCGCAACCCCGAGATC 1200
Qy 1207 GTGATCTACCAATACATGAGACGCTGTACGTTGGGCGAGGACCTGAGAGTGGGCGAGAC 1266
    |||
Db 1201 GTGATCTACCAATACATGAGACGCTGTACGTTGGGCGAGGACCTGAGAGTGGGCGAGAC 1260
Qy 1267 CGCGCCAGATCGAGGAGCTGCGCAAGCCTGTGCGCTGGGCGCTTCAACACCCCGAC 1326
    |||
Db 1261 CGCGCCAGATCGAGGAGCTGCGCAAGCCTGTGCGCTGGGCGCTTCAACACCCCGAC 1320
Qy 1327 AAGAAAGCAGAGAGAGGCCCCCTTCTGTGATGGGCTACGAGCTGACCCCGACAG 1386
    |||
Db 1321 AAGAAAGCAGAGAGAGGCCCCCTTCTGTGATGGGCTACGAGCTGACCCCGACAG 1380
Qy 1387 TGGACCGTGACAGCCCATCGAGCTGCCCGAGAGAGAGGCTGACCGTGAACGACATCCAG 1446
    |||
Db 1381 TGGACCGTGACAGCCCATCGAGCTGCCCGAGAGAGAGGCTGACCGTGAACGACATCCAG 1440
Qy 1447 AAGCTGTGGGAGAGCTGAAGTGGGCGAGCAGCAGATCTACCCCGGATCAAGGTGGCGAG 1506
    |||
Db 1441 AAGCTGTGGGAGAGCTGAAGTGGGCGAGCAGCAGATCTACCCCGGATCAAGGTGGCGAG 1500
Qy 1507 CTGTGCAAGCTCTGTGCGCGCGCGCAAGGCTTGAACGACATGTGCTCCCTTGAACCGAGAG 1566
    |||
Db 1501 CTGTGCAAGCTCTGTGCGCGCGCGCAAGGCTTGAACGACATGTGCTCCCTTGAACCGAGAG 1560
Qy 1567 GCCGAGCTGAGAGCTGCCCGAGAGACCGCGAGATCTTCCGCGGAGACCGGCGCGGTAC 1626
    |||
Db 1561 GCCGAGCTGAGAGCTGCCCGAGAGACCGCGAGATCTTCCGCGGAGACCGGCGCGGTAC 1620
Qy 1627 TACGACCCGAGAGAGCCTGTGAGCGAGATCCAGAGCAGAGGCGCAGCAGAGTGGAGC 1686
    |||
Db 1621 TACGACCCGAGAGAGCCTGTGAGCGAGATCCAGAGCAGAGGCGCAGCAGAGTGGAGC 1680
Qy 1687 TACGAGATCTACGAGAGGCTTCAAGAACTTGAAGACCGGCAAGTACGCGCAAGATGCGC 1746
    |||
Db 1681 TACGAGATCTACGAGAGGCTTCAAGAACTTGAAGACCGGCAAGTACGCGCAAGATGCGC 1740
Qy 1747 ACCGCGCAACCAAGCAGTGAAGAGCAGTGAACGAGGCGGTGAGAGAGATCCGATGAGAG 1806
    |||
Db 1741 ACCGCGCAACCAAGCAGTGAAGAGCAGTGAACGAGGCGGTGAGAGAGATCCGATGAGAG 1800
Qy 1807 AGCATGTATCTGGGGCAAGACCCCGAAGTTCGCGCTGCGCTCAAGAGAGAGAGCCTGG 1866
    |||
Db 1801 AGCATGTATCTGGGGCAAGACCCCGAAGTTCGCGCTGCGCTCAAGAGAGAGAGCCTGG 1860
Qy 1867 GAGAGCTGTGAGACGACTACTGAGAGCAGCAGCTGATCCCGAGTGGAGTTCTGTAAC 1926
    |||
Db 1861 GAGAGCTGTGAGACGACTACTGAGAGCAGCAGCTGATCCCGAGTGGAGTTCTGTAAC 1920
Qy 1927 ACCCGCGCGCTGTGAGAGCTGTGTATCAGCTGAGAGAGAGAGCCCATCTGCGCGCGAG 1986
    |||
Db 1921 ACCCGCGCGCTGTGAGAGCTGTGTATCAGCTGAGAGAGAGAGCCCATCTGCGCGCGAG 1980
Qy 1987 ACCTTCAAGTGAAGCGCGCGCAACCGGAGAGCAAGATGGGCAAGAGCGCGCTAGCTG 2046
    |||
Db 1981 ACCTTCAAGTGAAGCGCGCGCAACCGGAGAGCAAGATGGGCAAGAGCGCGCTAGCTG 2040
Qy 2047 ACCGACCGGCGCGGAGAGATGTGTAGGCTGACCGAGACCAACCAAGAGAGCGAG 2106

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Db 2041 ACCGACCGGCGCGGAGAGATGTGTAGGCTGACCGAGACCAACCAAGAGAGCGAG 2100
Qy 2107 CTGAGAGCATTCAGAGCTGAGCTTCAAGAGACGCGCGAGGAGTGAACATGTGTAGCAGAC 2166
    |||
Db 2101 CTGAGAGCATTCAGAGCTGAGCTTCAAGAGACGCGCGAGGAGTGAACATGTGTAGCAGAC 2160
Qy 2167 AGCGATTCGCGCTGGGATCATTCAGAGCCGAGCGCGCAAGAGAGGAGAGGAGCTGGTG 2226
    |||
Db 2161 AGCGATTCGCGCTGGGATCATTCAGAGCCGAGCGCGCAAGAGAGGAGAGGAGCTGGTG 2220
Qy 2227 AACGATCATTCAGAGCTGATCAAGAGAGAGAGTGTACTTGAAGTGGTGCCTGCGC 2286
    |||
Db 2221 AACGATCATTCAGAGCTGATCAAGAGAGAGAGTGTACTTGAAGTGGTGCCTGCGC 2280
Qy 2287 CACAAGGCGCATCGCGGCAAGAGCATTCAGAGCTGTGTAGAGAGGCTCCGCAAG 2346
    |||
Db 2281 CACAAGGCGCATCGCGGCAAGAGCATTCAGAGCTGTGTAGAGAGGCTCCGCAAG 2340
Qy 2347 GTGCTGTCTTGAAGAGGATGATGAGCGGCGCATTCGATCTACAGTACAGAGACCTG 2406
    |||
Db 2341 GTGCTGTCTTGAAGAGGATGATGAGCGGCGCATTCGATCTACAGTACAGAGACCTG 2400
Qy 2407 TACGAGGCGAGCGCGCGCTAGAGTCAATTAAAGCTTCCGCGGCTAGACCCGCT 2463
    |||
Db 2401 TACGAGGCGAGCGCGCGCGCTAGAGTCAATTAAAGCTTCCGCGGCTAGACCCGCT 2457

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RESULT 4  
US-09-699-575-31  
Sequence 31, Application US/09899575  
Publication No. US20030223961A1

GENERAL INFORMATION:  
APPLICANT: Zur Megele, Jan  
APPLICANT: Barnett, Susan W.  
APPLICANT: Egnelbrecht, Susan  
APPLICANT: van Rensburg, Betreilja Janse  
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
FILE REFERENCE: PP01631.102  
CURRENT APPLICATION NUMBER: US/09/899,575  
CURRENT FILING DATE: 2001-07-05  
PRIOR APPLICATION NUMBER: 09/475,704  
PRIOR FILING DATE: 1999-12-30  
NUMBER OF SEQ ID NOS: 135  
SOFTWARE: Patent In Ver. 2.0  
SEQ ID NO 31  
LENGTH: 2463  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: PR975YM  
US-09-699-575-31

Query Match 98.9%; Score 2442.2; DB 3; Length 2463;  
Best Local Similarity 99.6%; Pred. No. 0;  
Matches 2460; Conservative 0; Mismatches 3; Indels 6; Gaps 1;  
Qy 1 GTGACGCGACCATGAGCGAGGCGATGAGCGCAGGCGCAGCGCAGCAATCTGTATGAG 60  
Db 1 GTGACGCGACCATGAGCGAGGCGATGAGCGCAGGCGCAGCGCAGCAATCTGTATGAG 60  
Qy 61 CGAGCACTTCAAGGCGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGGCG 120  
Db 61 CGAGCACTTCAAGGCGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGGCG 120  
Qy 121 CACATGCGCGCAACTGCG 180  
Db 121 CACATGCGCGCAACTGCG 180  
Qy 181 GGCACCAAGTGAAGAGTGCACCGAGCGCCAGGCGCAACTTCTTCCGCGAGGACTGCGCC 240  
Db 181 GGCACCAAGTGAAGAGTGCACCGAGCGCCAGGCGCAACTTCTTCCGCGAGGACTGCGCC 240

OY	241	TTCCCCAGGCGCAAGGCCCGCGAGTTTCCCAAGCAGCAAGAACCGCGCCAAAGCCCCAC	300
Db	241	TTCCCCAGGCGCAAGGCCCGCGAGTTTCCCAAGCAGCAAGAACCGCGCCAAAGCCCCAC	300
OY	301	AGCCGCGAGCTGCAAGTGTGCGCGGCGAACAAACCCCGCAGCGAGGCGCGCGCGCGAG	360
Db	301	AGCCGCGAGCTGCAAGTGTGCGCGGCGAACAAACCCCGCAGCGAGGCGCGCGCGAG	360
OY	361	GGCACCTCTGAATTCCCCAGATCAACCTGTGGCAGCGCCCCCTGTGTAGATCAAGGTG	420
Db	361	GGCACCTCTGAATTCCCCAGATCAACCTGTGGCAGCGCCCCCTGTGTAGATCAAGGTG	420
OY	421	GCGCGGCAAGATCAAGAGAGCCCTGTCTGACACCGCGCGCCGACGACACCGTGTGAGAG	480
Db	421	GCGCGGCAAGATCAAGAGAGCCCTGTCTGACACCGCGCGCCGACGACACCGTGTGAGAG	480
OY	481	ATGAGCCTGTCCCGGCAATGTGAAAGCCCAAGATGATCGCGCGCATGTGGCGGCTTCAACA	540
Db	481	ATGAGCCTGTCCCGGCAAGTGTGAAAGCCCAAGATGATCGCGCGCATGTGGCGGCTTCAAG	540
OY	541	GTGCGCAGTACGACCAAGTCTGTACGAGCTGCGCGCAAGAAAGGCATCGGCACCGTG	600
Db	541	GTGCGCAGTACGACCAAGTCTGTATCGAGTCTGCGCGCAAGAGGCCATCGGCACCGTG	600
OY	601	CTGATCGGCCCCACCCCGTGAAATCATCGGCGGCAACATGCTGACCCAGTGGGCTGC	660
Db	601	CTGATCGGCCCCACCCCGTGAAATCATCGGCGGCAACATGCTGACCCAGTGGGCTGC	660
OY	661	ACCTTGAACTTCCCATACAGCCCCATCGAGACCGTGGCCCTGTGAAGCTGAAGCCCGGCA	720
Db	661	ACCTTGAACTTCCCATACAGCCCCATCGAGACCGTGGCCCTGTGAAGCTGAAGCCCGGCA	720
OY	721	GACGCGCCCAAGGTGAAGAGTGGCCCCGTAACCGAGGAGAAAGATCAAGGCCCTGACGCGC	780
Db	721	GACGCGCCCAAGGTGAAGAGTGGCCCCCTTGAACCGAGGAGAAAGATCAAGGCCCTTGAACGCGC	780
OY	781	ATCTGCGAGAGATGAGAGAGGCGCAAGATCACCAAGATCGGCCCGAGAACCCCTTAC	840
Db	781	ATCTGCGAGAGATGAGAGAGGCGCAAGATCACCAAGATCGGCCCGAGAACCCCTTAC	840
OY	841	AAACACCCCGGTGTTCGCATCAAGAAAGAGAGACGACACCAAGTGGCGCAAGCTGTGTGAC	900
Db	841	AAACACCCCGGTGTTCGCATCAAGAAAGAGAGACGACACCAAGTGGCGCAAGCTGTGTGAC	900
OY	901	TTCCGCGAGCTGAAAGAGGCGACCCAGGACTTTCGCGAGGTGCACTGTCCGCAATCCCGAC	960
Db	901	TTCCGCGAGCTGAAAGAGGCGACCCAGGACTTTCGCGAGGTGCACTGTCCGCAATCCCGAC	960
OY	961	CCCGCGCGGCTTGAAGAAGAGAGCGGTGACCGTGTGACGTTGGGCGAGCGCTTACTTC	1020
Db	961	CCCGCGCGGCTTGAAGAAGAGAGCGGTGACCGTGTGACGTTGGGCGAGCGCTTACTTC	1020
OY	1021	AGCGTCCCTTGAAGAGGACTTTCGCGAAGTACACCGGCTTCAACATCCCAAGCATCAAC	1080
Db	1021	AGCGTCCCTTGAAGAGGACTTTCGCGAAGTACACCGGCTTCAACATCCCAAGCATCAAC	1080
OY	1081	AAAGAGACCCCGCGGATCCGCTACCAAGTACAACTGTGTGCCCCCAAGGCGTGAAGGGCGAGC	1140
Db	1081	AAAGAGACCCCGCGGATCCGCTACCAAGTACAACTGTGTGCCCCCAAGGCGTGAAGGGCGAGC	1140
OY	1141	CCCAAGCATCTTTCAGAGCAGCATGACCAAGATCTGTGAGACCTTTCGCGCGCGCAACCC	1200
Db	1141	CCCAAGCATCTTTCAGAGCAGCATGACCAAGATCTGTGAGACCTTTCGCGCGCGCAACCC	1200
OY	1201	GAGATCGTATCTACCAAGTACATGAGCAACTGTACGTTGGCGAGGACCTGAGATCGGC	1260
Db	1201	GAGATCGTATCTACCA-----GACCCCCCTGTACGTTGGCGAGGACCTGAGATCGGC	1254
OY	1261	CAGACACCGCGCCAAATGAGAGAGCTTGGCGCAAGCACCTGTGCGCTTGGGGCTTCAACAC	1320
Db	1255	CAGACACCGCGCCAAATGAGAGAGCTTGGCGCAAGCACCTGTGCGCTTGGGGCTTCAACAC	1314

QY	1321	CCCCAAGAAAGCACAGAGAGAGCCCCCTTCTCTGTGATATGAGCTACAGACTGCACCC	1380
Db	1315	CCCCACAAGAAAGCACAGAGAGAGCCCCCTTCTCTGTGATATGAGCTACAGACTGCACCC	1374
QY	1381	GACAAATGAGACCTGTGAGAGCCCATGTAGGTGCGAGAGAGAGAGACTGGACCTGTAAAGAC	1440
Db	1375	GACAAATGAGACCTGTGAGAGCCCATGTAGGTGCGAGAGAGAGAGACTGGACCTGTAAAGAC	1434
QY	1441	ATCCAGAAAGCTGTGTGGGCAAGCTTGAACCTGGGCGAGACTTACCCCGGATCAAGGTG	1500
Db	1435	ATCCAGAAAGCTGTGTGGGCAAGCTTGAACCTGGGCGAGACTTACCCCGGATCAAGGTG	1494
QY	1501	CGCCAGCTGTGCAGAGCTGTGCGCGGCGCCAGGCGCTTACCGACATCTGTGCTCTTGAC	1560
Db	1495	CGCCAGCTGTGCAGAGCTGTGCGCGGCGCCAGGCGCTTACCGACATCTGTGCTCTTGAC	1554
QY	1551	GAGGAGGCGGAGCTGTGAGCTGGCCGAGAACCGGAGATCTGTGGCGGAGCCGTGTACAAGG	1620
Db	1555	GAGGAGGCGGAGCTGTGAGCTGGCCGAGAACCGGAGATCTGTGGCGGAGCCGTGTACAAGG	1614
QY	1621	GTTGTACTACGACCCCGACAGAGACCTGTGTGGCCGAGATCCAGAAAGCAGAGGCGACGACG	1680
Db	1615	GTTGTACTACGACCCCGACAGAGACCTGTGTGGCCGAGATCCAGAAAGCAGAGGCGACGACG	1674
QY	1681	TGGAACCTACAGATCTACAGAGAGCCCTTCAAGAACCTTGAAGACCGGCAAGTACGCCAG	1740
Db	1675	TGGAACCTACAGATCTACAGAGAGCCCTTCAAGAACTTGAAGACCGGCAAGTACGCCAG	1734
QY	1741	ATGGGACCCGCGCCACCAACAGAGTGAAGCAGTCGAGGCGGTGACAGAAATGGCC	1800
Db	1735	ATGGGACCCGCGCCACCAACAGAGTGAAGCAGTCGAGGCGGTGACAGAAATGGCC	1794
QY	1801	ATGGAAGACATCTGTATCTGTGGGCGAAGACCCCAAGTTCCGCTTGCCATCCAGAAAGAG	1860
Db	1795	ATGGAAGACATCTGTATCTGTGGGCGAAGACCCCAAGTTCCGCTTGCCATCCAGAAAGAG	1854
QY	1861	ACCTGGAGAGACTGTGTGAGCCGACTGTGAGGCGACCTTGATATCCCGATGGGAGTTT	1920
Db	1855	ACCTGGAGAGACTGTGTGAGCCGACTGTGAGGCGACCTTGATATCCCGATGGGAGTTT	1914
QY	1921	GTGAACAACCCCCCTGTGTGTAACCTGTGTGTACAGAGCTGGAGAAAGAGCCCATATCGGC	1980
Db	1915	GTGAACAACCCCCCTGTGTGTAACCTGTGTGTACAGAGCTGGAGAAAGAGCCCATATCGGC	1974
QY	1981	GCCGAGACCTTCTACGTGTGACGAGGCGGCGCAACCGGAGACCAAGATCTGGCAAGGCGGC	2040
Db	1975	GCCGAGACCTTCTACGTGTGACGAGGCGGCGCAACCGGAGACCAAGATCTGGCAAGGCGGC	2034
QY	2041	TACGTGACCGACCGGCGGCGGACAGAAATCTGTAGCTTGACCGAGACCAACCAAGAG	2100
Db	2035	TACGTGACCGACCGGCGGCGGACAGAAATCTGTAGCTTGACCGAGACCAACCAAGAG	2094
QY	2101	ACCGAGCTGACAGGCGCATTCACACTTGGCCCTTGAGAGACAGCGGCAACCGAGGTGAACATGTT	2160
Db	2095	ACCGAGCTGACAGGCGCATTCACACTTGGCCCTTGAGAGACAGCGGCAACCGAGGTGAACATGTT	2154
QY	2161	ACCGACAGACGTAAGGCGCTTGAGGATCATCCAGAGCCGACCCGACAAAGAGCGAGCGAG	2220
Db	2155	ACCGACAGACGTAAGGCGCTTGAGGATCATCCAGAGCCGACCCGACAAAGAGCGAGCGAG	2214
QY	2221	CTGTGTGAACCAAGATCATTCAGACAGCTGTATCAAGAGAGAAAGGTGTACTGTAGCTGGGT	2280
Db	2215	CTGTGTGAACCAAGATCATTCAGACAGCTGTATCAAGAGAGAAAGGTGTACTGTAGCTGGGT	2274
QY	2281	CCCCGCCCAAGAGGCGCATTCGGCGGCGACAGAGATTCGACAAAGCTGTGTGAGCAAGGCGATC	2340
Db	2275	CCCCGCCCAAGAGGCGCATTCGGCGGCGGACAGAGATTCGACAAAGCTGTGTGAGCAAGGCGATC	2334
QY	2341	CGCAAGGTGTCTTCTGTGACGAGATCGATGGCGGATCTGATCTACAGTACATGAGAC	2400
Db	2335	CGCAAGGTGTCTTCTGTGACGAGATCGATGGCGGATCTGATCTACAGTACATGAGAC	2394
QY	2401	GACCTGTATCTGTGACGAGCGGCGCTTGAAGATTCGATTAAGACTTCCCGGCGTAGCAC	2460

Db 2395 GACCGTACGTGGGAGGCGGCGCTAGAGATGATTAAGCTTCCGGGGCTAGCACCC 2454  
 QY 2461 GGTGAATTC 2469  
 Db 2455 GGTGAATTC 2463

RESULT 5  
 US-10-190-435-44  
 / Sequence 44, Application US/10190435  
 / Publication No. US20030143248A1  
 / GENERAL INFORMATION:  
 / APPLICANT: ZUR MEGEDE, Jan  
 / APPLICANT: BARNETT, Susan W.  
 / APPLICANT: LIAN, Ying  
 / APPLICANT: ENGELBRECHT, Susan  
 / APPLICANT: VAN RENSBURG, Estrellita J.  
 / TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
 / FILE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
 / FILE REFERENCE: P18133.003 / 2302-18133  
 / CURRENT APPLICATION NUMBER: US/10/190,435  
 / CURRENT FILING DATE: 2002-12-30  
 / NUMBER OF SEQ ID NOS: 319  
 / SOFTWARE: PatentIn Ver. 2.0  
 / SEQ ID NO 44  
 / LENGTH: 2457  
 / TYPE: DNA  
 / ORGANISM: Artificial Sequence  
 / FEATURE:  
 / OTHER INFORMATION: Description of Artificial Sequence: p2Polopt\_YM\_C  
 US-10-190-435-44

Query Match 98.6%; Score 2434.6; DB 6; Length 2457;

Best Local Similarity 99.6%; Pred. No. 0; Mismatches 4; Indels 6; Gaps 1;

Matches 2453; Conservative 0;

QY 1 GTGACGCGCACCATGCGCGGCGCATGAGCCAGCGCCAGCCCAACTCTGATGACG 60  
 Db 1 GTGACGCGCACCATGCGCGGCGCATGAGCCAGCGCCAGCCCAACTCTGATGACG 60  
 QY 61 CGGAGCACTTCAGAGGGCGCCCAAGCGCATCATAGTCTTCAACTGCGGCAAGAGGGC 120  
 Db 61 CGGAGCACTTCAGAGGGCGCCCAAGCGCATCATAGTCTTCAACTGCGGCAAGAGGGC 120  
 QY 121 CACATGCGCGGCACTGCG 180  
 Db 121 CACATGCGCGGCACTGCG 180  
 QY 181 GGCACCAAGTGAAGGACTGACCGAGCGCGAGCGCAACTTCTTCGCGAGGACTGGCC 240  
 Db 181 GGCACCAAGTGAAGGACTGACCGAGCGCGAGCGCAACTTCTTCGCGAGGACTGGCC 240  
 QY 241 TTCCCGCAGGCGCAAGGCGCGAGTTCCCGAGGAGCAACCGCGCAACAGCCCCACC 300  
 Db 241 TTCCCGCAGGCGCAAGGCGCGAGTTCCCGAGGAGCAACCGCGCAACAGCCCCACC 300  
 QY 301 AGCGCGAGGCTGCGAGGTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 360  
 Db 301 AGCGCGAGGCTGCGAGGTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 360  
 QY 361 GGCACCTGAACCTTCCCGCAGATCACTCTGTGCGAGCGCGCGCTGTGAGCACTCAAG 420  
 Db 361 GGCACCTGAACCTTCCCGCAGATCACTCTGTGCGAGCGCGCGCTGTGAGCACTCAAG 420  
 QY 421 GCGCGCGAGATCAAGAGGCGCTGTGAGCACTCGGCGCGCAACAGCTGTGTGAGAG 480  
 Db 421 GCGCGCGAGATCAAGAGGCGCTGTGAGCACTCGGCGCGCAACAGCTGTGTGAGAG 480  
 QY 481 ATGAGCTGCG 540  
 Db 481 ATGAGCTGCG 540

QY 541 GTGCGCGAGTACGACCAAGATCTGATCGAGATCTGCGCGCAAGAGGCCATCGGACCGGTG 600  
 Db 541 GTGCGCGAGTACGACCAAGATCTGATCGAGATCTGCGCGCAAGAGGCCATCGGACCGGTG 600  
 QY 601 CTGATCGGCG 660  
 Db 601 CTGATCGGCG 660  
 QY 661 ACCCTGAACCTTCCCGCAGATCACTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 720  
 Db 661 ACCCTGAACCTTCCCGCAGATCACTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 720  
 QY 721 GACG 780  
 Db 721 GACG 780  
 QY 781 ATCTGCGAGAGATGAGAGAGGCGCAAGATCACTGAGCGCGCGCGCGCGCGCGCGCGCG 840  
 Db 781 ATCTGCGAGAGATGAGAGAGGCGCAAGATCACTGAGCGCGCGCGCGCGCGCGCGCGCG 840  
 QY 841 AACACCG 900  
 Db 841 AACACCG 900  
 QY 901 TTCCGCGAGCTGAGAGGCGCACCGGAGCTTCTGAGAGGTCAGCTGCGGCACTCCCGCAC 960  
 Db 901 TTCCGCGAGCTGAGAGGCGCACCGGAGCTTCTGAGAGGTCAGCTGCGGCACTCCCGCAC 960  
 QY 961 CCG 1020  
 Db 961 CCG 1020  
 QY 1021 AGCTGCG 1080  
 Db 1021 AGCTGCG 1080  
 QY 1081 AACGAGACCG 1140  
 Db 1081 AACGAGACCG 1140  
 QY 1141 CCGAGCATCTTCAAGAGGAGCATGACCAAGATCTGAGCGCGCGCGCGCGCGCGCGCGCG 1200  
 Db 1141 CCGAGCATCTTCAAGAGGAGCATGACCAAGATCTGAGCGCGCGCGCGCGCGCGCGCGCG 1200  
 QY 1201 GAGATCTGATCTACCAATGACGACCTGTACGAGCTGTGAGGCGCGCGCGCGCGCGCG 1260  
 Db 1201 GAGATCTGATCTACCAATGACGACCTGTACGAGCTGTGAGGCGCGCGCGCGCGCGCG 1260  
 QY 1261 CAGACCG 1320  
 Db 1261 CAGACCG 1320  
 QY 1321 CCGGACAGAGGAGCAAGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1380  
 Db 1321 CCGGACAGAGGAGCAAGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1380  
 QY 1381 GACAGATGAGCCGTGAGCG 1440  
 Db 1381 GACAGATGAGCCGTGAGCG 1440  
 QY 1435 ATCTGAGAGGCTGTGAGGCAAGCTGAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1494  
 Db 1435 ATCTGAGAGGCTGTGAGGCAAGCTGAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1494  
 QY 1495 CCGCAGCTGTGAGGAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1554  
 Db 1495 CCGCAGCTGTGAGGAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1554  
 QY 1561 GAGAGAGCGCGAGCTGTGAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1620  
 Db 1561 GAGAGAGCGCGAGCTGTGAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1620  
 QY 1621 GTGTACTAGACCCCGAGCAAGAGCACTGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1680

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Db 1615 GTGACTACGACCCGAGAGAGACTGGTGGCCGAGATCCAGAAAGCAGGCGCAGACGAG 1674
Qy 1681 TGGACCTTACGAGATCTACAGAGAGCCCTTCAAGAACTTGAAGACCGGGAATACGCCAAG 1740
Db 1675 TGGACCTTACGAGATCTACAGAGAGCCCTTCAAGAACTTGAAGACCGGGAATACGCCAAG 1734
Qy 1741 ATGCGACCGGCGCAGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1800
Db 1735 ATGCGACCGGCGCAGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1794
Qy 1801 ATGAGAGAGATCTGATCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1860
Db 1795 ATGAGAGAGATCTGATCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1854
Qy 1861 ACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1920
Db 1855 ACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1914
Qy 1921 GTGAACACCCCGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980
Db 1915 GTGAACACCCCGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1974
Qy 1981 GCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040
Db 1975 GCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2034
Qy 2041 TACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2100
Db 2035 TACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2094
Qy 2101 ACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2160
Db 2095 ACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2154
Qy 2161 ACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2220
Db 2155 ACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2214
Qy 2221 CTGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2280
Db 2215 CTGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2274
Qy 2281 CCCGCGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2340
Db 2275 CCCGCGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2334
Qy 2341 CGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2400
Db 2335 CGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2394
Qy 2401 GACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2460
Db 2395 GACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2454
Qy 2461 GGT 2463
Db 2455 GGT 2457

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## RESULT 6

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US-10-190-305A-38
; Sequence 38, Application US/10190305A
; Publication No. US20030198621A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGABE, Jan
; APPLICANT: BARNETT, Susan
; APPLICANT: LIAN, Ying
; TITLE OF INVENTION: POLYNICTROTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
; FILE REFERENCE: 2302-18702 / 18702.002
; CURRENT APPLICATION NUMBER: US/10/190.305A
; CURRENT FILING DATE: 2002-07-05

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; NUMBER OF SEQ ID NOS: 93
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 38
; LENGTH: 2457
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: p2polopt.yw.C
US-10-190-305A-38

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Query Match 98.64; Score 2434.6; DB 6; Length 2457;
Best Local Similarity 99.64; Pred. No. 0;
Matches 2453; Conservative 0; Mismatches 4; Indels 6; Gaps 1;

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Qy 1 GTGACGCGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 60
Db 1 GTGACGCGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 60
Qy 61 CGCAGCAACTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 120
Db 61 CGCAGCAACTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 120
Qy 121 CACATCGCCGCAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 180
Db 121 CACATCGCCGCAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 180
Qy 181 GGCACACGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 240
Db 181 GGCACACGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 240
Qy 241 TTCCCGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 300
Db 241 TTCCCGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 300
Qy 301 AGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 360
Db 301 AGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 360
Qy 361 GGCACCTGAACTTCCCGCAGATCACTCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 420
Db 361 GGCACCTGAACTTCCCGCAGATCACTCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 420
Qy 421 GCGCGCGAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 480
Db 421 GCGCGCGAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 480
Qy 481 ATGAGCTGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 540
Db 481 ATGAGCTGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 540
Qy 541 GTGCGCGAGTACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 600
Db 541 GTGCGCGAGTACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 600
Qy 601 CTGATCGGCGCGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 660
Db 601 CTGATCGGCGCGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 660
Qy 661 ACCCTGAACTTCCCGCATAGCGCCCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 720
Db 661 ACCCTGAACTTCCCGCATAGCGCCCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 720
Qy 721 GACGCGCGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 780
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Db 781 ATTCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 840
Qy 841 AACACCCCGGTGTTCCCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900
Db 841 AACACCCCGGTGTTCCCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900

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Qy	901	TTCCGCGAAGCTGAACAAGCGCACCCGAGACTTCCTGGGAAGGTGAGCTGGGATATCCCCCAC	960
Db	901	TTCCGCGAAGCTGAACAAGCGCACCCGAGACTTCCTGGGAAGGTGAGCTGGGATATCCCCCAC	960
Qy	961	CCCGCCGGGCTGAAAGAAAGAAAGAGGGTACCGGTGTGAGCGTGGGACGACGCTTACTTC	1020
Db	961	CCCGCCGGGCTTGAAGAAAGAAAGAGGGTACCGGTGTGAGCGTGGGACGACGCTTACTTC	1020
Qy	1021	AGCGTGCCTCCCTGAGCGAGACTTCGCGAAGTACAACGCGCTTTCACATCCCAGACATCAAC	1080
Db	1021	AGCGTGCCTCCCTGAGCGAGACTTCGCGAAGTACAACGCGCTTTCACATCCCAGACATCAAC	1080
Qy	1081	AACGAGACCCCCCGGCATTCGCGTACCAACTACAAGTGTGTGCCCCAGGGCTGAAAGGGGAGC	1140
Db	1081	AACGAGACCCCCCGGCATTCGCGTACCAACTACAAGTGTGTGCCCCAGGGCTGAAAGGGGAGC	1140
Qy	1141	CCGAGCATCTTCCAGAGCAGCATGACCAAGATCTGTGAGCCCTTCCGCGCCGCAACCCC	1200
Db	1141	CCGAGCATCTTCCAGAGCAGCATGACCAAGATCTGTGAGCCCTTCCGCGCCGCAACCCC	1200
Qy	1201	GAGATCGTGAATCTTACCAAGTACATGAGACGACCTGTACGTGGGACAGCGACTTGAAGATCGC	1260
Db	1201	GAGATCGTGAATCTTACCAAGTACATGAGACGACCTGTACGTGGGACAGCGACTTGAAGATCGC	1260
Qy	1261	CAGCACCGCGCCAGAGATCGAGAGAGCTGGCGCAGACACTCTGCTGGCTGGGGCTTCAACAC	1320
Db	1255	CAGCACCGCGCCAGAGATCGAGAGAGCTGGCGCAGACACTCTGCTGGCTGGGGCTTCAACAC	1314
Qy	1321	CCCCACAAAGAGCACAGAAAGAACCCCCCTTCTGTGGATGGGCTTACGAGCTGACACCC	1380
Db	1315	CCCCACAAAGAGCACAGAAAGAACCCCCCTTCTGTGGATGGGCTTACGAGCTGACACCC	1374
Qy	1381	GACAAGTGGACCGGTGACAGCCCATGAGCTGGCCGAGAAAGAGAGACTGACCGTGAACGAC	1440
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Db	1435	ATCCAGAAAGCTGTGGGGCAGACTGAACTGGGCCCAGCCAGCATGATCTACCCCGCATTAAGCTG	1494
Qy	1501	CGCCAGCTGTGTCAAGCTGTCTGCGCGCGCCAGAGGCCCTGACACCGACATCTGTGCGCCCTAGC	1560
Db	1495	CGCCAGCTGTGTCAAGCTGTCTGCGCGCGCCAGAGGCCCTGACACCATGTGCGCCCTAGC	1554
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Db	1615	GTGTACTTACGACCCCGCAGAGAGACTGTGTGGCCGAGATCCAGAAACAGAGGCAAGACGACGACG	1674
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Db	1675	TGGAACCTTACCAAGTCTTACAGAGAGCCCTTCAAGAACCTTGAAAGACCGGCAATTAGGCGAAG	1734
Qy	1741	ATGGGCAACGCGCCACACCAACGAGCGTGAAGCAGCTGACCGAGGCGGTGCAGAAAGTCCGCG	1800
Db	1735	ATGGGCAACGCGCCACACCAACGAGCGTGAAGCAGCTGACCGAGGCGGTGCAGAAAGTCCGCG	1794
Qy	1801	ATGAGAGAGCATGTGATCTTGGGGCAAGAACCCCAAGTTCCGCTGTGCCATCCAGAGAG	1860
Db	1795	ATGAGAGAGCATGTGATCTTGGGGCAAGAACCCCAAGTTCCGCTGTGCCATCCAGAGAG	1854
Qy	1861	ACCTGGAGAGCTGTGTGACCGGACTTATCTGGCAGGCGCACTTGAATCCCCGAGTGGGAGCTTC	1920
Db	1855	ACCTGGAGAGCTGTGTGACCGGACTTATCTGGCAGGCGCACTTGAATCCCCGAGTGGGAGCTTC	1914
Qy	1921	GTGAACAACCCCCCTGGTGAAGCGTGTGATCCAGCTGGAGAAAGAGCCATCATCGCG	1980
Db	1915	GTGAACAACCCCCCTGGTGAAGCGTGTGATCCAGCTGGAGAAAGAGCCATCATCGCG	1974

Qy	1981	GCCGAGACCTTCTTACGTGTGACGCGCGCCGCCAACCGGAGACCAAGATCCGCAAGGCGCGC	2040
Db	1975	GCCGAGACCTTCTTACGTGTGACGCGCGCCGCCAACCGGAGACCAAGATCCGCAAGGCGCGC	2034
Qy	2041	TACGTGACCGACCGGGGCGCGGAGAAAGATCGTAGGCTGTGACCGAGACCAACCAACGAAAG	2100
Db	2035	TACGTGACCGACCGGGGCGCGGAGAAAGATCGTAGGCTGTGACCGAGACCAACCAACGAAAG	2094
Qy	2101	ACCGAGCTGACGAGCGCATTCAGCTTGCCCTTGACAGACGCGGACGAGAGTGAACATCGTG	2160
Db	2095	ACCGAGCTGACGAGCGCATTCAGCTTGCCCTTGACAGACGCGGACGAGAGTGAACATCGTG	2154
Qy	2161	ACCGACGACCGCATTCAGCGCTTGCGGCGATATCATCAAGCCCCAGGCCGACCAAGCGAGCGAG	2220
Db	2155	ACCGACGACCGCATTCAGCGCTTGCGGCGATATCATCAAGCCCCAGGCCGACCAAGCGAGCGAG	2214
Qy	2221	CTGGTGAAACCAAGATCATTCAGAGAGCTGTACAAAGAGAAAGGTGTACTGTAGCTGGGTG	2280
Db	2215	CTGGTGAAACCAAGATCATTCAGAGAGCTGTACAAAGAGAAAGGTGTACTGTAGCTGGGTG	2274
Qy	2281	CCCCGCCACAAAGGCGCATTCGGCGCGCAAGACAGATCGACAAAGCTGGTAGCAAGGGCATC	2340
Db	2275	CCCCGCCACAAAGGCGCATTCGGCGCGCAAGACAGATCGACAAAGCTGGTAGCAAGGGCATC	2334
Qy	2341	CGCAAGGTGCTGTTCTCTGAGACGCGCATGATGCGCGCATTCGTGATCTTCCAGTACATGAGAC	2400
Db	2335	CGCAAGGTGCTGTTCTCTGAGACGCGCATGATGCGCGCATTCGTGATCTTCCAGTACATGAGAC	2394
Qy	2401	GACCTGTACCTGGGCGACGCGCGGCGCCTTAGATTCGATTAAGAGCTTCCCGGGGCTAGACAC	2460
Db	2395	GACCTGTACCTGGGCGACGCGCGGCGCCTTAGATTCGATTAAGAGCTTCCCGGGGCTAGACAC	2454
Qy	2461	GGT 2463	
Db	2455	GCT 2457	
RESULT 7			
US-09-899-575-32			
; Sequence 32, Application US/0989575			
; Publication No. US20030223961A1			
; GENERAL INFORMATION:			
; APPLICANT: Zur Megele, Jan			
; APPLICANT: Barnett, Susan W.			
; APPLICANT: Egnelbrecht, Susan			
; APPLICANT: van Rensburg, Sirellita Janse			
; TITLE OF INVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C			
; FILE REFERENCE: P01631.102			
; CURRENT APPLICATION NUMBER: US/09/899,575			
; PRIOR FILING DATE: 2001-07-05			
; PRIOR APPLICATION NUMBER: 09/475,704			
; NUMBER OF SEQ ID NOS: 135			
; SOFTWARE: PatentIn Ver. 2.0			
; SEQ ID NO 32			
; LENGTH: 2457			
; TYPE: DNA			
; ORGANISM: Artificial Sequence			
; FEATURE:			
; OTHER INFORMATION: Description of Artificial Sequence: PR975YMMM			
US-09-899-575-32			
Query Match 97.8%; Score 2415.4; DB 3; Length 2457;			
Best Local Similarity 99.3%; Pred. No. 0;			
Matches 2451; Conservative 0; Mismatches 6; Indels 12; Gaps 2.			
Qy	1	GTGACGACCAACCATGGCGCGAGGCGCATGAGCCAGGCGCACGAGCGCAACATCTGTATGACG	60
Db	1	GTGACGACCAACCATGGCGAGGCGCATGAGCCAGGCGCACGAGCGCAACATCTGTATGACG	60
Qy	61	CGAGCACTTCAAGGCGCGCCCAAGGCGCATTCAGTGTCTTCACTGGGGAAGAGGCG	120



61 CGCAGCACTTCAAGGGCCCCAGCGCATCATCTGCTTCAACTGCGGCAAGAGGC 120  
QY CACATCGCGCGCACTGCGCGGCCCCCGCAAGAGGCTGTGGAACTGGCGCAAGAG 180  
Db CACATCGCGCGCACTGCGCGGCCCCCGCAAGAGGCTGTGGAACTGGCGCAAGAG 180  
QY GGCACACGATGAAAGGACTGCAACCGAGCGCAAGGCATTCTTCCGCGAGAGCTTGCC 240  
Db GGCACACGATGAAAGGACTGCAACCGAGCGCAAGGCATTCTTCCGCGAGAGCTTGCC 240  
QY TTCTCCCGAGGGCAAGGCTCGGAGTTCTCCCGAGCGCAAGGCCTGCGCAAGGCCTCC 300  
Db TTCTCCCGAGGGCAAGGCTCGGAGTTCTCCCGAGCGCAAGGCCTGCGCAAGGCCTCC 300  
QY AGCGCGAGCTGCAAGGTGCGCGGCAAGACCCCGCGAGCGAGCGCGCGAGCGCGAG 360  
Db AGCGCGAGCTGCAAGGTGCGCGGCAAGACCCCGCGAGCGAGCGCGCGAGCGCGAG 360  
QY GGCACCTTGAACCTTCCCGCAATCACTCTGTGCGAGCGCGCTGTGTGAGCATCAAGGTG 420  
Db GGCACCTTGAACCTTCCCGCAATCACTCTGTGCGAGCGCGCTGTGTGAGCATCAAGGTG 420  
QY GCGCGCGCATCAAGAGAGGCTCTGTGCAACCGCGCGCGAGCAACCTGTCTGTGAGAG 480  
Db GCGCGCGCATCAAGAGAGGCTCTGTGCAACCGCGCGCGAGCAACCTGTCTGTGAGAG 480  
QY ATGAGCTGTGCGCGCAAGTGAAGGCGCAAGATGATCGCGCGCATCGCGGCTTCAACAAG 540  
Db ATGAGCTGTGCGCGCAAGTGAAGGCGCAAGATGATCGCGCGCATCGCGGCTTCAACAAG 540  
QY GTGCGCGCATCAAGAGGCGCGCAAGTGAAGTCTGTGCGCAAGAGCGCATCGCGAGCTG 600  
Db GTGCGCGCATCAAGAGGCGCGCAAGTGAAGTCTGTGCGCAAGAGCGCATCGCGAGCTG 600  
QY CTGATCGGCG 660  
Db CTGATCGGCG 660  
QY ACCCTGAACCTTCCCGCATCAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 720  
Db ACCCTGAACCTTCCCGCATCAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 720  
QY GACG 780  
Db GACG 780  
QY ATCTGCGAGAGATGGAAGAGAGGCGCAAGATCAACCAAGATCGCGCGCGCGCGCGCG 840  
Db ATCTGCGAGAGATGGAAGAGAGGCGCAAGATCAACCAAGATCGCGCGCGCGCGCGCG 840  
QY AACACCCCCGTTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900  
Db AACACCCCCGTTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900  
QY TTCCGCGAGCTGAACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 960  
Db TTCCGCGAGCTGAACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 960  
QY CCG 1020  
Db CCG 1020  
QY AGCGGTGCG 1080  
Db AGCGGTGCG 1080  
QY AACGAG 1140  
Db AACGAG 1140  
QY CCGAG 1200  
Db CCGAG 1200

QY GAGATCGGATCTACCAAGTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1260  
Db GAGATCGGATCTACCAAGTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1260  
QY CAGCAGCG 1320  
Db CAGCAGCG 1320  
QY CAGCAGCG 1380  
Db CAGCAGCG 1380  
QY CCGCAG 1440  
Db CCGCAG 1440  
QY ATCCAG 1500  
Db ATCCAG 1500  
QY GCGCAGCG 1560  
Db GCGCAGCG 1560  
QY GAGAGAGCG 1620  
Db GAGAGAGCG 1620  
QY GTGATCTACAG 1680  
Db GTGATCTACAG 1680  
QY TGAGCTTACAG 1740  
Db TGAGCTTACAG 1740  
QY ATGCGCAGCG 1800  
Db ATGCGCAGCG 1800  
QY ATGCGCAGCG 1860  
Db ATGCGCAGCG 1860  
QY ATGCGCAGCG 1920  
Db ATGCGCAGCG 1920  
QY ACCGAG 1980  
Db ACCGAG 1980  
QY GTGAAACCCCCCG 2040  
Db GTGAAACCCCCCG 2040  
QY GCGCAG 2100  
Db GCGCAG 2100  
QY TACGAG 2160  
Db TACGAG 2160  
QY ACCGAG 2220  
Db ACCGAG 2220  
QY ACCGAG 2280  
Db ACCGAG 2280  
QY CCGAG 2340  
Db CCGAG 2340

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QY 2281 CCCGCCCAAGGCGCATGCGCGCGCAACGAGCATGACAACTGTGTGAGCAAGGCGATC 2340
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Db 2269 CCCGCCCAAGGCGCATGCGCGCGCAACGAGCATGACAACTGTGTGAGCAAGGCGATC 2328
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|
|
QY 2341 CGCAAGGTGCTGTTCTCTGAGCGGCGCATCGATGCGCGCATGATCTACACGATGAC 2400
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|
|
Db 2329 CGCAAGGTGCTGTTCTCTGAGCGGCGCATCGATGCGCGCATGATCTACACGATGAC 2388
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|
|
QY 2401 GACCTGTACGTGAGCGCGCGCGCTTAGAGATCGATTAAAGCTTCCGCGGCTAGCACC 2460
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|
|
Db 2389 GACCTGTACGTGAGCGCGCGCGCTTAGAGATCGATTAAAGCTTCCGCGGCTAGCACC 2448
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QY 2461 GGTGAATTC 2469
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Db 2449 GGTGAATTC 2457
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RESULT 8
US-10-190-435-43
; Sequence 43, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Estrelita J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 43
; LENGTH: 2445
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: p2Pol.opt.YMMW_C
US-10-190-435-43

Query Match 97.3%; Score 2401.8; DB 6; Length 2445;
Best Local Similarity 99.2%; Pred. No. 0;
Matches 2438; Conservative 0; Mismatches 7; Indels 12; Gaps 2;

QY 7 GCCACCATGCGCGAGCGCATGAGCCAGGCCCAACGAGGCCCAACATCTCTGATGACGCGCAGC 66
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Db 1 GCCACCATGCGCGAGCGCATGAGCCAGGCCCAACGAGGCCCAACATCTCTGATGACGCGCAGC 60
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|
QY 67 AACCTCAAGGCGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGGCGCATC 126
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Db 61 AACCTCAAGGCGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGGCGCATC 120
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|
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QY 127 GCCCGCAACTGCGCGCGCGCGCGCGCGCAAGAGGCGTGTGAAAGTGTGCGCAAGAGGCGCAC 186
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|
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Db 121 GCCCGCAACTGCGCGCGCGCGCGCGCGCGCAAGAGGCGTGTGAAAGTGTGCGCAAGAGGCGCAC 180
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QY 187 CAGATGAAGACCTGCAACCGAGCGCGCAAGGCGCAACTTCTTCCGCGAGGACCTGTGCGCTTCC 246
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|
|
Db 181 CAGATGAAGACCTGCAACCGAGCGCGCAAGGCGCAACTTCTTCCGCGAGGACCTGTGCGCTTCC 240
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|
QY 247 CAGGCGAAGGCGCGCGAGTTCCCGAGGAGCAAGAACCGCGCAACAGCGCCCAACGCGCGC 306
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Db 241 CAGGCGAAGGCGCGCGAGTTCCCGAGGAGCAAGAACCGCGCAACAGCGCCCAACGCGCGC 300
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QY 307 GAGCTGCAAGTGTGCGCGCGCAACCCCGAGCGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGC 366
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Db 301 GAGCTGCAAGTGTGCGCGCGCAACCCCGAGCGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGC 360
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QY 367 CTGAACCTTCCCGCAAGATCAACCTGTGTGCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 426
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Db 361 CTGAACCTTCCCGCAAGATCAACCTGTGTGCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 420
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QY 487 CTGCGCGCAAGTGAAGCGCCCAAGATGATCGCGCGCATCGCGGCTTCAATCAAGGTGCC 546
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Db 481 CTGCGCGCAAGTGAAGCGCCCAAGATGATCGCGCGCATCGCGGCTTCAATCAAGGTGCC 540
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QY 547 CAGTACGACAGATCTGTATCGAATCTGTGCGCAAGAGGCCATGTGGGACCGCTGTGATC 606
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|
Db 541 CAGTACGACAGATCTGTATCGAATCTGTGCGCAAGAGGCCATGTGGGACCGCTGTGATC 600
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QY 607 GCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 666
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Db 601 GCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 660
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|
QY 667 AACCTTCCCATCAGCGCCCATCGAGACCGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 726
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|
Db 661 AACCTTCCCATCAGCGCCCATCGAGACCGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 720
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QY 727 CCGAAGGTGAGCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 786
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Db 721 CCGAAGGTGAGCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 780
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QY 787 GAGGAGATGAGAGAGAGGCGCAAGATCAACAGATCGCGCGCGCGCGCGCGCGCGCGCG 846
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Db 781 GAGGAGATGAGAGAGAGGCGCAAGATCAACAGATCGCGCGCGCGCGCGCGCGCGCGCG 840
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QY 847 CCGGTGTGCGCATCAAGAGAGAGCAAGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 906
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Db 841 CCGGTGTGCGCATCAAGAGAGAGCAAGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 900
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|
QY 907 GAGCTGAACAGCGCAACCGAGCATTTCTGTGAGGTGCGAGCTGTGGCATCCCCACCGCGC 966
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Db 901 GAGCTGAACAGCGCAACCGAGCATTTCTGTGAGGTGCGAGCTGTGGCATCCCCACCGCGC 960
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QY 967 GCGCTGAAGAGAGAGAGCGGTGACCGGTGTGAGGTGAGGTGAGGTGAGGTGAGGTGAG 1026
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|
Db 961 GCGCTGAAGAGAGAGAGCGGTGACCGGTGTGAGGTGAGGTGAGGTGAGGTGAGGTGAG 1020
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QY 1027 CCGCTGAGAGAGAGCTTCCGCAAGTACACCGCGCTTCAACATCCCGAGCATCAACAGAG 1086
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|
Db 1021 CCGCTGAGAGAGAGCTTCCGCAAGTACACCGCGCTTCAACATCCCGAGCATCAACAGAG 1080
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|
QY 1087 ACCCGCGCATCGCTTACCAAGTACCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 1146
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|
|
Db 1081 ACCCGCGCATCGCTTACCAAGTACCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 1140
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|
QY 1147 ATCTTCAAGAGCAATGACCAAGATCTGTGAGCGCTTCCGCGCGCGCGCGCGCGCGCG 1206
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|
|
Db 1141 ATCTTCAAGAGCAATGACCAAGATCTGTGAGCGCTTCCGCGCGCGCGCGCGCGCGCG 1200
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|
|
QY 1207 GTGATCTAACAGTACATGAGACGACTGTGAGTGTGAGGAGCGACCTGTGAGATCGCGCAG 1266
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|
|
Db 1201 GTGATCTAAC-----GCGCGCGCTGTGAGTGTGAGGAGCGACCTGTGAGATCGCGCAG 1254
|
|
|
QY 1267 CCGCGCAAGTCAAGAGAGTGTGCGCAAGACCTGTGCGCTGTGAGGCGCTTCAACACCGCG 1326
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|
Db 1255 CCGCGCAAGTCAAGAGAGTGTGCGCAAGACCTGTGCGCTGTGAGGCGCTTCAACACCGCG 1314
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|
QY 1327 AAGAGCAACCAAGAGAGCGCGCGCTTCTGTGTGATGTGAGTGTGAGTGTGAGTGTGAG 1386
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Db 1315 AAGAGCAACCAAGAGAGCGCGCGCTTCTGTGTGATGTGAGTGTGAGTGTGAGTGTGAG 1368
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|
QY 1387 TGAACGCTGAGCGCATTCAGAGTGTGCGAGAGAGAGAGTGTGACCGTGAACGATTCAG 1446
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|
Db 1369 TGAACGCTGAGCGCATTCAGAGTGTGCGAGAGAGAGAGTGTGACCGTGAACGATTCAG 1428
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QY 1447 AAGCTGTGTGAGCAAGCTGAATGTGAGCGAGCAAGCTGAATTCCTCGCGCATCAAGGTGCGCAG 1506
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Db 1429 AAGCTGTGTGAGCAAGCTGAATGTGAGCGAGCAAGCTGAATTCCTCGCGCATCAAGGTGCGCAG 1488
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QY 1507 CTGTGCAAGCTGCTGCGGCGCCAGAGGCGCTGACCGACATCTGCTCCCTGACCGAGAG 1566  
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QY 1567 GCCGAGCTGAGGCTGCGGCGCCAGAGGCTGCTGCGGCGGCGCTGACCGAGGCTGAC 1626  
Db 1549 GCCGAGCTGAGGCTGCGGCGCCAGAGGCTGCTGCGGCGGCGCTGACCGAGGCTGAC 1608  
QY 1627 TACGACCCGACGAGGAGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 1686  
Db 1609 TACGACCCGACGAGGAGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 1668  
QY 1687 TACGAGATCTACGAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 1746  
Db 1669 TACGAGATCTACGAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 1728  
QY 1747 ACCGCGCCACGAGGAGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 1806  
Db 1729 ACCGCGCCACGAGGAGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 1788  
QY 1807 AGCATCTGATCTGCGGCGCCAGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGAC 1866  
Db 1789 AGCATCTGATCTGCGGCGCCAGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGAC 1848  
QY 1867 GAGACCTGATGAGGAGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 1926  
Db 1849 GAGACCTGATGAGGAGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 1908  
QY 1927 ACCGCGCCACGAGGAGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 1986  
Db 1909 ACCGCGCCACGAGGAGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 1968  
QY 1987 ACCTTCTAGTGAAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2046  
Db 1969 ACCTTCTAGTGAAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2028  
QY 2047 ACCGAGCGGCGCGGAGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2106  
Db 2029 ACCGAGCGGCGCGGAGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2088  
QY 2107 CTGCAAGGCTGCTGCGGCGCCAGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGAC 2166  
Db 2089 CTGCAAGGCTGCTGCGGCGCCAGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGAC 2148  
QY 2167 AGCGAGTGAAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2226  
Db 2149 AGCGAGTGAAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2208  
QY 2227 AACGAGATCATGAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2286  
Db 2209 AACGAGATCATGAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2268  
QY 2287 CACAAAGGCTGCTGCGGCGCCAGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGAC 2346  
Db 2269 CACAAAGGCTGCTGCGGCGCCAGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGAC 2328  
QY 2347 GTGCTGCTCTGAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2406  
Db 2329 GTGCTGCTCTGAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2388  
QY 2407 TACGAGGAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2463  
Db 2389 TACGAGGAGGAGGCTGCTGCGGCGCCAGAGGCTGACCGAGGCTGACCGAGGCTGAC 2445

RESULT 9  
US-10-190-305A-37  
; Sequence 37, Application US/10190305A  
; Publication No. US2003019621A1

; GENERAL INFORMATION:  
; APPLICANT: ZUR MEGEDE, Jan  
; APPLICANT: BARRETT, Susan  
; APPLICANT: LIAN, Ying

; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR  
; TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USBS THEREOF  
; FILE REFERENCE: 2302-18702 / 18702.002  
; CURRENT APPLICATION NUMBER: US/10/190,305A  
; CURRENT FILING DATE: 2002-07-05  
; NUMBER OF SEQ ID NOS: 93  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 37  
; LENGTH: 2445  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURES:  
; OTHER INFORMATION: Description of Artificial Sequence:  
; OTHER INFORMATION: p2Pol.opt.YMM\_C  
US-10-190-305A-37

Query Match 97.3%; Score 2401.8; DB 6; Length 2445;  
Best Local Similarity 99.2%; Pred. No. 0;  
Matches 2438; Conservative 0; Mismatches 7; Indels 12; Gaps 2;

QY 7 GCCACATGAGGCGGAGGCGATGAGCGAGGCGCCAGAGGCTGCTGCGGCGCCAGAGGCTGAC 66  
Db 1 GCCACATGAGGCGGAGGCGATGAGCGAGGCGCCAGAGGCTGCTGCGGCGCCAGAGGCTGAC 60  
QY 67 AACTTCAAGGCGCCAGAGGCGATCATCAAGTCTTCACTGCGGCGCAAGAGGAGGCGCATATC 126  
Db 61 AACTTCAAGGCGCCAGAGGCGATCATCAAGTCTTCACTGCGGCGCAAGAGGAGGCGCATATC 120  
QY 127 GCCGCGCACTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 186  
Db 121 GCCGCGCACTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 180  
QY 187 CAGATGAAGGAGCTGACCGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 246  
Db 181 CAGATGAAGGAGCTGACCGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 240  
QY 247 CAGGCGCAAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 306  
Db 241 CAGGCGCAAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 300  
QY 307 GAGCTGCAAGGCTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 366  
Db 301 GAGCTGCAAGGCTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 360  
QY 367 CTGAACTTCCCGGAGATCAACCTGCTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 426  
Db 361 CTGAACTTCCCGGAGATCAACCTGCTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 420  
QY 427 CAGATCAAGAGGCGCTGCTGAGCAACCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 486  
Db 421 CAGATCAAGAGGCGCTGCTGAGCAACCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 480  
QY 487 CTGCGCGGCAAGTGAAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 546  
Db 481 CTGCGCGGCAAGTGAAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 540  
QY 547 CAGTACGAGCGAGTCTGATGAGATCTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 606  
Db 541 CAGTACGAGCGAGTCTGATGAGATCTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 600  
QY 607 GCGCCACCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 666  
Db 601 GCGCCACCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 660  
QY 667 AACTTCCCGATCAAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 726  
Db 661 AACTTCCCGATCAAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 720  
QY 727 CCAAGGCGGAGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 786  
Db 721 CCAAGGCGGAGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 780  
QY 787 GAGGAGATGAGAGGAGGAGGAGATCAACCAAGATCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 846







QY 2294 GCATCGGCGGCAAGAGCATGCAAGCTGTGAGCAAGGCGCATCCGCAAGTCTGT 2353  
DB 3755 GCATCGGCGGCAAGAGCATGCAAGCTGTGAGCAAGGCGCATCCGCAAGTCTGT 3814  
QY 2354 TCCTGAGCGCATGATGCGCGCATCTGTACTACCATACATGACGACCTGTACCTGG 2413  
DB 3815 TCCTGAGCGCATGATGCGCGCATCTGTACTACCATACATGACGACCTGTACCTGG 3874  
QY 2414 GCAGCGGCGGCGCTAGATGATTAAGCTTCCGCGGCTAGCACCGGT 2463  
DB 3875 GCAGCGGCGGCGCTAGATGATTAAGCTTCCGCGGCTAGCACCGGT 3924

## RESULT 11

US-10-190-435-10  
; Sequence 10, Application US/10190435  
; Publication No. US20030143248A1  
; GENERAL INFORMATION:  
; APPLICANT: ZUR MEGEDE, Jan  
; APPLICANT: BARRETT, Susan W.  
; APPLICANT: LIAN, Ying  
; APPLICANT: ENGELBRECHT, Susan  
; APPLICANT: VAN KENSBURG, Beteleita U.  
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
; FILE REFERENCE: P18133.003 / 2302-18133  
; CURRENT APPLICATION NUMBER: US/10/190,435  
; CURRENT FILING DATE: 2002-12-30  
; NUMBER OF SEQ ID NOS: 319  
; SOFTWARE: Patent Ver. 2.0  
; SEQ ID NO 10  
; LENGTH: 3930  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURES:  
; OTHER INFORMATION: Description of Artificial Sequence: GagComp1polmutat\_c  
US-10-190-435-10

Query Match 96.9%; Score 2393.2; DB 6; Length 3930;  
Best Local Similarity 99.2%; Pred. No. 0; Mismatches 8; Indels 12; Gaps 2;  
Matches 2430; Conservative 0;

QY 14 TGGCCGAGGCGCATGAGCGCACGAGCGCAATCTGTATGACGCGACCAATTCA 73  
DB 1487 TGGCCGAGGCGCATGAGCGCACGAGCGCAATCTGTATGACGCGACCAATTCA 1546  
QY 74 AGGCGCCCAAGGCGCATGATGATGCTTCACTGCGGCAAGAGGCGCATGCGCCGCA 133  
DB 1547 AGGCGCCCAAGGCGCATGATGATGCTTCACTGCGGCAAGAGGCGCATGCGCCGCA 1606  
QY 134 ACTGCGCGCGCGCGCGCAAGAGGCGTGTGAAGTGGCGCAAGAGGCGCAACAGATGA 193  
DB 1607 ACTGCGCGCGCGCGCGCAAGAGGCGTGTGAAGTGGCGCAAGAGGCGCAACAGATGA 1666  
QY 194 AGGACTGACCGAGCGCGCAAGGCGCAATCTTCTGCGGAGGACCTGCGCTTCCCGCAGGCA 253  
DB 1667 AGGACTGACCGAGCGCGCAAGGCGCAATCTTCTGCGGAGGACCTGCGCTTCCCGCAGGCA 1726  
QY 254 AGGCGCGCGAGTTCCTCCAGCGAGAGAACCGCGCGCAACGCGCCACCAAGCGCGAGCTGC 313  
DB 1727 AGGCGCGCGAGTTCCTCCAGCGAGAGAACCGCGCGCAACGCGCCACCAAGCGCGAGCTGC 1786  
QY 314 AGGTGGCGCGCGCAACCCCGCGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCACT 373  
DB 1787 AGGTGGCGCGCGCAACCCCGCGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCACT 1846  
QY 374 TCCCGCAGATCAACCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAATCA 433  
DB 1847 TCCCGCAGATCAACCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAATCA 1906  
QY 434 AGGAGCGCGCTGTGACACCGCGCGCGAGGACACCGTGTGTGAGAGATGAGCTTCCCGG 493

DB 1907 AGAGGCGCGCTGTGACTCCGCGCGCGACGACACCGTGTGTGAGAGATGAGCTTCCCGG 1966  
QY 494 GCAGTGGAGGCCCAAGATGATCGCGCGCATCGCGCGCTTCAATCAAGTGTGGCAAGTACG 553  
DB 1967 GCAGTGGAGGCCCAAGATGATCGCGCGCATCGCGCGCTTCAATCAAGTGTGGCAAGTACG 2026  
QY 554 ACCAGATCTGTGATGAGATCTGCGGCGCAAGAGGCGCATCGGACGCTGTGATCGGCGCCA 613  
DB 2027 ACCAGATCTGTGATGAGATCTGCGGCGCAAGAGGCGCATCGGACGCTGTGATCGGCGCCA 2086  
QY 614 CCCCCTGTGACATCATCGGCGCAACATGCTGACCCAGCTGAGCTGACCTGTAACTTCC 673  
DB 2087 CCCCCTGTGACATCATCGGCGCGCAACATGCTGACCCAGCTGAGCTGACCTGTAACTTCC 2146  
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DB 2207 TGAAGCATGTGCGCGCTGACGAGGAGAAAGATCAAGGCGCTGACGCGCATCTGCGAGAGA 2266  
QY 794 TGAAGAGAGAGGCAAGATCAACCAAGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCTGT 853  
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QY 974 AGAAG 1033  
DB 2447 AGAAG 2506  
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QY 1094 GCATCGCGTACAGTACAG 1153  
DB 2567 GCATCGCGTACAGTACAG 2626  
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DB 2741 AGATGAG 2800  
QY 1334 ACCAG 1393  
DB 2801 ACCAG 2854  
QY 1394 TGCAGCCCATGAG 1453  
DB 2855 TGCAGCCCATGAG 2914  
QY 1454 TGGGCAAGTGAAGTGGGCGAGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1513  
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DB 2975 ACCTGCTGCGAG 3034

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 DB 3095 CCAGCAAGAGACTGTGTGGCCGAGATCCAGAAAGAGGGCCAGCAGCACTGTGACCTTACCA 3154  
 QY 1694 TCTACCGAGAGCCCTTCAAGAACTTGAAGACCGGCAATGACCAATATGGGCAACCCGCC 1753  
 DB 3155 TCTACCGAGAGCCCTTCAAGAACTTGAAGACCGGCAATGACCAATATGGGCAACCCGCC 3214  
 QY 1754 ACACCAAGAGCTGAAGAGCTGACCGAGCGCTGCAAGAAATGSCCATATGAGAGCATTCG 1813  
 DB 3215 ACACCAAGAGCTGAAGAGCTGACCGAGCGCTGCAAGAAATGSCCATATGAGAGCATTCG 3274  
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 DB 3275 TGATCTGGGGCAAGACCCCAAGTTCCGCTGCTCCATTCAGAGAGAGACTTGGAGACT 3334  
 QY 1874 GGTGAGACGACTACTGTGGAGGCACTGTGATCCCGAGTGGAGATTGTGTAAACACCCCCC 1933  
 DB 3335 GGTGAGACGACTACTGTGGAGGCACTGTGATCCCGAGTGGAGATTGTGTAAACACCCCCC 3394  
 QY 1934 CCCTGTGAGAGCTGTGTGACCACTGTGAGAGAGGCCATCATCGCGCCGAGACCTTCT 1993  
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 QY 1994 ACGTGAACGAGCGCGCCAAACCGGAGAGCAAGATCGGCAAGCGCGCTTACCTGTGACCA 2053  
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 DB 3515 GGGGCGCGGAGAGATCGTGAAGCTGTGACCGAGACCAACCAAGAGAGCCGAGCTGTGAC 3574  
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 DB 3635 ACGGCTGGGAGCATCTCCAGGCGCCAGCCGACCAAGAGCGAGAGCGAGCTGTGTGACCA 3694  
 QY 2234 TCATTCGAGCACTGATCAAGAGAGAGAGTGTACTGTGAGCTGTGTGACCGGAGAGG 2293  
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 DB 3755 GCATCGGCGGCAACGAGAGATCGACAGCTGTGTGAGCAAGGCAATCCGCAAGGCTGTGT 3814  
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 DB 3815 TCCTGAGACGAGCATGTATGAGCGGAGCTGTGATCTACAGTACATGTGACGACCTGTAT 3874  
 QY 2414 GCAGCGGCGGCGCTTGAAGATCGATTAAAGCTTCCCGGGGCTTACGACCCGGT 2463  
 DB 3875 GCAGCGGCGGCGCTTGAAGATCGATTAAAGCTTCCCGGGGCTTACGACCCGGT 3924

RESULT 12  
 US-10-190-435-11  
 ; Sequence 11, Application US/10190435  
 ; Publication No. US20030143248A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: ZUR MEGEDB, Jan  
 ; APPLICANT: BARRETT, Susan W.  
 ; APPLICANT: LIAN, Ying  
 ; APPLICANT: ENGELBRECHT, Susan  
 ; APPLICANT: VAN RENSBURG, Seirelita J.  
 ; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C

; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
 ; FILE REFERENCE: P18133.003 / 2302-18133  
 ; CURRENT APPLICATION NUMBER: US/10/190.435  
 ; CURRENT FILING DATE: 2002-12-30  
 ; NUMBER OF SEQ ID NOS: 319  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 11  
 ; LENGTH: 3930  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURES:  
 ; OTHER INFORMATION: Description of Artificial Sequence: GagCmplPolmultina\_C  
 US-10-190-435-11

Query Match 96.9%; Score 2393.2; DB 6; Length 3930;  
 Best Local Similarity 99.2%; Pred. No. 0;  
 Matches 2430; Conservative 0; Mismatches 8; Indels 12; Gaps 2;  
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 DB 1487 TGGCCGAGGCCATGAGCCAGGCGCACAGCGCAACATCTGTATGACGCGACGAACTTCA 1546  
 QY 74 AGGCCCCCAAGCGCATCATCAAGTGTCTTCACTGGCGGCAAGAGGCGCAATGGCCGCA 133  
 DB 1547 AGGCCCCCAAGCGCATCATCAAGTGTCTTCACTGGCGGCAAGAGGCGCAATGGCCGCA 1606  
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 QY 554 ACCAGATCTGTATGAGATCTGCGGCAAGAGGCAATCGGCACTGTGTGATCGGCGCA 613  
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 QY 674 CCATCAGGCCCATGAGACGCTGCGCGTGAAGTGAAGCCCGGATGTGACGAGCGCCCAAG 733  
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 QY 734 TGAAGCAGTGGCCCTTGAACGAGAGAGAGATCAAGCCCTTGAACCTTGTGAGAGAGA 793  
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Db ACTGCGCGCGCCCCCGCAAGAGGCTGCTGAAAGTGGCGCAAGAGGCGCCACGAGATGA 2920  
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Qy TCCCCAGATCACTCTGTGGAGCGCGCTGTGTGAGCATCAAGGTGGCGCGCGAGATCA 433  
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Qy GCAAGTGAAGCCCAAGATGATCGCGCGGATCGCGCGCTTCAATCAAGGTGCGCGAGTACG 553  
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Db GCAAGTGAAGCCCAAGATGATCGCGCGGATCGCGCGCTTCAATCAAGGTGCGCGAGTACG 3280  
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Db ACCAGATCTGATCGAGATCTGCGCGAGAGAGCCATCGGCAACCGTGTGATCGCGCGCA 3340  
3281 ACCAGATCTGATCGAGATCTGCGCGAGAGAGCCATCGGCAACCGTGTGATCGCGCGCA 3340  
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3341 CCCCCGTAATCATCTGGCGCGCAACATGCTGACCCAGCTGGCGCGCAACCTGAACCTTC 3400  
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Qy CCATCAGCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGCAATGAGCGCGCGCAAG 733  
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Db TGAAGCACTGCGCCCTGACCGGAGAGATCAAGGCGCTGACCGCATCTGCGAGAGGA 3580  
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Qy AGAAGAAAG 1033  
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Qy ACGAG 1093  
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Db AG 3940  
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| | | | |  
Qy AGATGAG 1333  
| | | | |  
Db AGATGAG 4054  
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Qy TGCAGCCCATGAG 1453  
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| | | | |  
Qy TCTACAG 1753  
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Qy ACACCAAG 1813  
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Qy TCAATGAG 2293  
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Qy GCATCGCGCGAG 2353  
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Db      5009 GCATCGGCGGCGAAGAGATGCAAGCTGGAGAGAGGCAATCCGCAAGGTGCTGT 5068
Oy      2354 TCCTGGACCGGATGATGGGCGCATCGATCTACAGTACATGAGACGACTGTACGTG 2413
Db      5069 TCCTGGACCGGATGATGGGCGCATCGATCTACAGTACATGAGACGACTGTACGTG 5128
Oy      2414 GCACGCGGCGGCTTGAATGATGATTAAGGCTTCCGCGGCTAGCACCGGT 2463
Db      5129 GCACGCGGCGGCTTGAATGATGATTAAGGCTTCCGCGGCTAGCACCGGT 5178

RESULT 14
US-10-190-305A-82
; Sequence 82, Application US/10190305A
; Publication No. US20030198621A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan
; APPLICANT: LIAN, Ying
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
; TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: 2302-18702 / 18702.002
; CURRENT APPLICATION NUMBER: US/10/190,305A
; NUMBER OF SEQ ID NOS: 93
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO: 82
; LENGTH: 5184
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; US-10-190-305A-82

Query Match      96.9%; Score 2393.2; DB 6; Length 5184;
Best Local Similarity 99.2%; Pred. No. 0;
Matches 2430; Conservative 0; Mismatches 8; Indels 12; Gaps 2;

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Db      3281 ACCAGATCTTGATGAGATCTGGCGCAAGAGGCCATCGGACCGTGTGATTCGGCCCCA 3340
Oy      614 CCCCCGTGAACATCATCGGCGCGCAATGCTGACCCGAGCTGGGGTGCACCTGAACTTCC 673
Db      3341 CCCCCGTGAACATCATCGGCGCGCAATGCTGACCCGAGCTGGGGTGCACCTGAACTTCC 3400
Oy      674 CCATCAGCCCCCATGAGACGCTGCCCCGTGAAGTGAAGCCCGGATGAGACGCGCCAAAG 733
Db      3401 CCATCAGCCCCCATGAGACGCTGCCCCGTGAAGTGAAGCCCGGATGAGACGCGCCAAAG 3460
Oy      734 TGAAGAGTGGCCCCCTGACCGAGAGAAATCAAGGCCCTTGAACCGCCATCTGCGAGAGA 793
Db      3461 TGAAGAGTGGCCCCCTGACCGAGAGAAATCAAGGCCCTTGAACCGCCATCTGCGAGAGA 3520
Oy      794 TGGAGAGAGAGGCAAGTCAACAGATCGGCCCCCGAGAACCCCTTACAAACCCCGTGT 853
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Oy      854 TCGCATCAAGAAAGAGACAGACCAAGTGGCGCAAGCTGTGACTTCCGCGAGCTGA 913
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Oy      914 ACAAGCGCACCAAGACTTCTGGAGAGTGCAGCTGGGCAATCCCAACCCCGCGCTGA 973
Db      3641 ACAAGCGCACCAAGACTTCTGGAGAGTGCAGCTGGGCAATCCCAACCCCGCGCTGA 3700
Oy      974 AGAAGAAAGAGAGCTGACCGTGTGACCTGGGGAGAGCCCTTACAGCGTGGCCCTGG 1033
Db      3701 AGAAGAAAGAGAGCTGACCGTGTGACCTGGGGAGAGCCCTTACAGCGTGGCCCTGG 3760
Oy      1034 ACGAGAACTTCGCGAAGTACACCGCTTCAACATCCCGAGCATCAACAAGAGACCCCG 1093
Db      3761 ACGAGAACTTCGCGAAGTACACCGCTTCAACATCCCGAGCATCAACAAGAGACCCCG 3820
Oy      3821 GCATCGGCTACAGTACAAAGTGTGCTGCCAGGGCTGGAAGGGCAGCCCAACATCTTCC 3880
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Oy      3941 ACCA-----GGCCCCCTGTACGTGGGAGGCACTGGAGATGGGCGACGCGGCA 3994
Db      1274 AGATGAGAGAGCTGGCGAAGCACTGTGCGTGGGGCTTCAACACCCCGCAAGAAC 1333
Oy      3995 AGATGAGAGAGCTGGCGAAGCACTGTGCGTGGGGCTTCAACACCCCGCAAGAAC 4054
Db      1334 ACCAAGAGAGCCCCCTTCTGTGTGATGGGCTAGAGTTCGACCCCGCAAGTGAACG 1393
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Db      1394 TGCAGCCCATGAGCTGCCCGAAGAGAGAGTGAACCTGGAACGATTCGAAGACTGG 1453
Oy      4109 TGCAGCCCATGAGCTGCCCGAAGAGAGAGTGAACCTGGAACGATTCGAAGACTGG 4168
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Oy      4169 TGGGCAAGCTGAATCTGGGCAAGCTGATCAACCCCGCATCAAGGTGCGCAGCTGTGA 4228
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Oy      4229 AGCTGCTGCGCGCGCAAGGCTGACCGATGTGCTGCTGACCGAGAGAGGCGGAGC 4288
Db      1574 TGGAGTGGCGAAGACCGAGATCTGCGCAAGCCCTGCAAGCGCTGTACTAGACC 1633
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4289 TGGAGCTGGCCGAGAACCGCAGATCTCTGCGCGAGCCCTGTCACGCGCTGTACTACGACC 4348  
QY 1634 CCAGCAAGAGACCTGTGGCCGAGATCCGAAGCAGGGCCACGACGATGACCTTACCGAGA 1693  
Db 4349 CCAGCAAGAGACCTGTGGCCGAGATCCGAAGCAGGGCCACGACGATGACCTTACCGAGA 4408  
QY 1694 TCTACCAAGAGACCTTCAAGAACTGAAAGACCGGCAAGTACGCCAAGATGCGACACCGCC 1753  
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Db 4469 ACACCAACGAGCTGAGAGAGCTGACCCAGGGCTGTGCAAGAAATATGATGAGAGCATCG 4528  
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Db 4529 TGATCTGGGGGCAAGACCCCAAGTTCCGCTGCGCATCCAGAAAGAGACTTGGAGAGACT 4588  
QY 1874 GGTGGAACGACTACTGTGGAGGCACTTGGATCCCGAGTGGAGAGTTCTGTGAACACCCCC 1933  
Db 4589 GGTGGAACGACTACTGTGGAGGCACTTGGATCCCGAGTGGAGAGTTCTGTGAACACCCCC 4648  
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Db 4649 CCTGTGTAAAGCTGTGTGTACCAAGCTGTGAGAAAGAGCCCATCATGTGGCGCCGAGACTTCT 4708  
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Db 4769 GGGGCGCGCAGAAAGTCTGTAGCCTGACCGAGACCAACCAAGAGACCGAGCTGACAG 4828  
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Db 4829 CCAATCCAGCTGCTGTGTGAGAGCAGCGGCAAGAGTGAACATCTGTGACCGACAGCCACT 4888  
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Db 4889 AGCGCTGTGGGATCATCCAGGCGCCGAGCCGAGCCGAGCCGAGCCGAGCTGTGTGAACCGA 4948  
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QY 2294 GCATCGGAGGCAAGAGAGATCCAGCAAGCTGTGTGAGAGAGGCACTCCGCAAGGTGCTGT 2353  
Db 5009 GCATCGGAGGCAAGAGAGATCCAGCAAGCTGTGTGAGAGAGGCACTCCGCAAGGTGCTGT 5068  
QY 2354 TCCTGAGAGGATCATGATGAGGAGCATGTGATCTACAGTACATGAGACGACTGTACGTGG 2413  
Db 5069 TCCTGAGAGGATCATGATGAGGAGCATGTGATCTACAGTACATGAGACGACTGTACGTGG 5128  
QY 2414 GCAAGCGGCGCTTGAAGTCAATTAAGCTTCCCGAGGCTAGACCGGT 2463  
Db 5129 GCAAGCGGCGCTTGAAGTCAATTAAGCTTCCCGAGGCTAGACCGGT 5178

RESULT 15  
US-10-190-435-13

Sequence 13, Application US/10190435  
Publication No. US20030143248A1  
GENERAL INFORMATION:  
APPLICANT: ZUR MEGEDE, Jan  
APPLICANT: BARRETT, Susan W.  
APPLICANT: LIAN, Ying  
APPLICANT: ENGELBRECHT, Susan  
APPLICANT: VAN RENSBURG, Estrellita J.  
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
FILE REFERENCE: PPI8133.003 / 2302-18133  
CURRENT APPLICATION NUMBER: US/10/190,435

CURRENT FILING DATE: 2002-12-30  
NUMBER OF SEQ ID NOS: 319  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 13  
LENGTH: 3531  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: GagPolmut\_C  
US-10-190-435-13

Query Match 95.7%; Score 2362.8; DB 6; Length 3531;  
Best Local Similarity 98.4%; Pred. No. 0;  
Matches 2411; Conservative 0; Mismatches 27; Indels 12; Gaps 2;

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Db 1448 TCCCGCAGATCACTGTGTGAGCGCGCGCGGTGTGAGATCAAGTGTGAGCGCGAGATCA 1507  
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Db 1748 CCATCAGCGCCCATGAGACCGTGTGCGGAGTGAAGTGTGAGAGTGTGAGAGTGTGAGAG 1807  
QY 734 TGAAGAGTGTGCGCGTGTGCGAGGAGAGATCAAGAGCCCTGACGCGCATCTGTGAGAGAGA 793  
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QY 794 TGAAGAGAGAGGAGAGATCAACAGATGCGCGCGAGAACCCCTTACACACACCCCGTGT 853  
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 Db 2876 TGATCTGGGGAGAGACCCCGAAGTTCGCTGTGCAATCCAGAGAGAGACTTGGAGACTT 2935  
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 Job time : 1739.2 secs

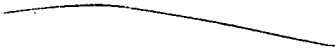
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November 2005

Published\_Applications Nucleic Acid and Published\_Applications Amino Acid database searches now generate two sets of results each. The Published\_Applications databases have been split into two parts to reduce the amount of time required for their daily updates. This results in more machine time being available for processing searches.

Newly published applications will appear in the Published\_Applications\_New databases; older published applications make up the Published\_Applications\_Main databases.

Searches run against Nucleic Acid Published\_Applications produce two sets of results, with the extensions **.rnpbm** (Published\_Applications\_NA\_Main) and **.rnpbn** (Published\_Applications\_NA\_New).  
Searches run against Amino Acid Published\_Applications produce two sets of results, with the extensions **.rapbm** (Published\_Applications\_AA\_Main) and **.rapbn** (Published\_Applications\_AA\_New).



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GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: December 30, 2005, 08:57:15 ; Search time 296.387 Seconds  
(without alignments)  
4366.995 Million cell updates/sec

Title: US-09-610-313B-30

Perfect score: 2469  
Sequence: 1 gtcgacgccaccatgcccga.....ggctagcaccggtgaattc 2469

Scoring table: IDENTITY NUC  
Gapop 10.0 , Gapext 1.0

Searched: 4172979 seqs, 262114271 residues

Total number of hits satisfying chosen parameters: 8345958

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%  
Listing first 45 summaries

Database : Published Applications\_NA\_New.\*  
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2: /cgn2\_6/ptodata/1/pubpna/US06\_NEW\_PUB.seq.\*  
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9: /cgn2\_6/ptodata/1/pubpna/US11\_NEW\_PUB.seq3.\*  
10: /cgn2\_6/ptodata/1/pubpna/US60\_NEW\_PUB.seq.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Results No.	Score	Query Match	Length	DB ID	Description
1	1342.8	54.4	1689	6	US-10-507-928-9
2	1342.8	54.4	1689	6	US-10-507-928-11
3	1342.8	54.4	1689	7	US-11-029-465-9
4	1342.8	54.4	1689	7	US-11-029-465-11
5	1132	45.8	9719	9	US-11-042-988-10
6	156.2	6.3	17207	6	US-10-519-531-8
7	154.6	6.3	1503	6	US-10-519-531-2
8	141.4	5.7	1503	6	US-10-507-928-3
9	141.4	5.7	1503	6	US-11-029-465-3
10	100.2	4.1	2736	6	US-10-858-730-142
11	100.2	4.1	2736	6	US-10-858-730-38
12	94.8	3.8	1434	7	US-11-075-185-57
13	94.8	3.8	14172	7	US-11-075-185-2
14	88.6	3.6	1386	7	US-11-075-185-55
15	86.2	3.5	37507	6	US-10-522-037-2
16	80.2	3.2	2010	7	US-11-058-727-5
17	80.2	3.2	2010	7	US-11-108-389-5
18	72.6	2.9	1115	7	US-11-143-986-7
19	72.6	2.9	3711	6	US-10-873-528-321
20	71.4	2.9	8730	7	US-11-087-100-1
21	71.4	2.9	8730	7	US-11-087-084-1
22	71.4	2.9	8730	7	US-11-087-085-1
23	69.4	2.8	1593	6	US-10-858-730-138

24	67.4	2.7	1590	6	US-10-858-730-162	Sequence 162, App
25	66.6	2.7	864	7	US-11-179-411-26	Sequence 26, Appl
26	66.6	2.7	864	7	US-11-175-766-26	Sequence 26, Appl
27	66	2.7	1690	6	US-10-667-295-204	Sequence 204, App
28	65.8	2.7	1161	6	US-10-858-730-170	Sequence 170, App
29	64.4	2.6	3408	6	US-10-858-730-40	Sequence 40, Appl
30	64	2.6	6264	7	US-11-075-185-58	Sequence 58, Appl
31	64	2.6	78669	7	US-11-075-185-1	Sequence 1, Appl1
32	63.8	2.6	765	7	US-11-075-185-50	Sequence 50, Appl1
33	63.8	2.6	14172	7	US-11-075-185-2	Sequence 2, Appl1
34	62.8	2.5	3477	6	US-10-858-730-141	Sequence 141, App
35	61.8	2.5	5206	7	US-11-000-463-219	Sequence 219, App
36	61.8	2.5	116856	7	US-11-143-980-1	Sequence 1, Appl1
37	61.2	2.5	1119	7	US-11-143-980-11	Sequence 11, Appl1
38	61.2	2.5	8651	6	US-10-432-483-48	Sequence 48, Appl1
39	60.2	2.4	1344	7	US-11-112-882-12	Sequence 12, Appl1
40	60.2	2.4	1687	7	US-11-112-882-13	Sequence 13, Appl1
41	59.8	2.4	6360	7	US-11-056-470-2	Sequence 2, Appl1
42	59.6	2.4	3832	6	US-10-821-234-99	Sequence 99, Appl1
43	59.4	2.4	2376	7	US-11-056-621-3	Sequence 3, Appl1
44	58.8	2.4	2133	7	US-11-143-980-13	Sequence 13, Appl1
45	58.8	2.4	11070	7	US-11-075-185-34	Sequence 34, Appl1

## ALIGNMENTS

RESULT 1  
US-10-507-928-9  
Sequence 9, Application US/10507928  
Publication No. US20050266024A1  
GENERAL INFORMATION:  
APPLICANT: POWDERMID LIMITED AND GLAXO GROUP LIMITED  
TITLE OF INVENTION: ADJUVANT  
FILE REFERENCE: N.882328 GCM  
CURRENT APPLICATION NUMBER: US/10/507,928  
CURRENT FILING DATE: 2004-09-17  
NUMBER OF SEQ ID NOS: 12  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 9  
LENGTH: 1689  
TYPE: DNA  
ORGANISM: Artificial sequence  
FEATURE:  
OTHER INFORMATION: nucleotide sequence of RT insert of p7077-RT3  
US-10-507-928-9

Query Match	54.4%	Score 1342.8	DB 6	Length 1689
Best Local Similarity	87.4%	Pred. No. 2.9e-206		
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DB	6	CCCCATCAGTCCCATCGAGACCGTCCCGTGAAGCTGAAGCCCGCATGAGCGGCCCA	65	
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DB	66	GGTCAAGCAGTGGCCCTGACCGAGGAAGATCAAGCCCTGATGAGTTCGACCGA	125	
QY	792	GATGGAAGAGGAGGGAATGATCCAAATCGGCCCGGAGAACCCCTACACACCCCGT	851	
DB	126	GATGGAAGAGGAGGGAATGATCCAAATCGGCCCGGAGAACCCCTACACACCCCGT	185	
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DB	186	GTTGCGCATCAAGAGAGGACGACCAAGTGGCGCAGCTGTGATCTTCGCGAGCT	245	
QY	912	GAAAGAGCGACCCAGACTTCTGGAGAGTGCAGCTGGGCTATCCCAACCCCGCGCT	971	
DB	246	GAAAGAGCGACCCAGACTTCTGGAGAGTGCAGCTGGGCTATCCCAACCCCGCGCT	305	
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Oy      1092 CGGCAATCCGCTACCAAGTACAAAGTGTGCTGCGCCGAGGCTGGAAGAGGCAAGCATCTT 1151
Db      426 TGGCATCAGATATCAGTCAAGTCTCTCCCGAGGCTGGAAGAGGCTCTCCCGCATCTT 485
Oy      1152 CCAAGAGAGAGTACCAAGATCTCGGAGCGCTTCCGCGCCCGCAACCCCGAGATCTGTAT 1211
Db      486 CCAAGAGCTCAATGACCAAGATCTCGGAGCGCTTTCGGAAGCAAGACCCCGATCTGTAT 545
Oy      1212 CTACCAAGTACATGAGAGCACTGTATCGTGGGCGAGCACTGTGAGATCGGCGAGCAACCG 1271
Db      546 CTACCAAGTACATGAGAGCACTGTATCGTGGGCTGTGACCTGTGAATTCGGGAGCATCG 605
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Db      1086 CCAACACCAAGAGAGTGTCAAGAGAGTGAAGAGCGGTGCAAGAGATCGCATGTGAGAGCAT 1145
Oy      1812 CGTGTACTGTGGGCAAGAGCGCCCAAGTTCCGCTGCGCATCCAGAGAGAGCTGTGAGAGC 1871
Db      1146 CGTGTACTGTGGGCAAGAGCAACCAAGTTCAAGCTGTCTATCCAGAGAGAGAGCTGTGAGAGC 1205
Oy      1872 CTGTGTGAGACCGATCTGTGAGAGGCGCATCTGTGATCCCGAGTGGAGGTTCTGTGAACCCC 1931
Db      1206 GTGTGTGAGACCGAATTTGTGAGAGGCGCATCTGTGATCCCGAGTGGAGGTTCTGTGAATCAAC 1265
Oy      1932 CCCCCTGTGTGAAGCTGTGTGTACAGCTGGAAGAGAGCGCATCATCGGCGCGAGAGCATCTT 1991
Db      1266 TCTCTGTGTGAAGCTGTGTGTACAGCTGGAAGAGAGCGCATCATCGGCGCGAGAGCATCTT 1325
Oy      1992 CTACGTGAGACCGCGCGCGCGCAACCGCGAGAGCAAGATCGGCAAGAGCTCGCTACGTGACCGA 2051
Db      1326 CTACGTGAGACCGCGCGCGCGCAACCGCGAGAGCAAGAGCTCGGAGTACGTCAACAA 1385
Oy      2052 CCGGCGCGCGCGCAAGAGATGTGTGAGCTGTGACCGAGAGCAACCAAGAGAGAGCGAGCTGCA 2111
Db      1386 CCGGCGCGCGCGCAAGAGATGTGTGACCGAGAGCAACCAAGAGAGAGCGAGCTGCA 1445

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Oy      2112 GGCCATCAGCTGGCCCTGTGACAGACAGCGGAGAGGTGAACATCTGTACCGAGCGCA 2171
Db      1446 GGCATCTATCTCCGCTCTCCAGAGACTCGGCGCTGAGAGGTGAACATCTGTGACCGAGCGCA 1505
Oy      2172 GTAGCGCCCTGGGATCATCCAGGCGCCAGCCCGCAAGAGCGAGAGCGAGCTGTGAACCA 2231
Db      1506 GTAGCGCGCTGGGATTTATTCAGGCGCCAGCCCGAGCATGTCCAGAGCGAATGTGTGAACCA 1565
Oy      2232 GATCATCGAGAGCTGATCAAGAGAGAGAGGTGTACTGTAGCTGGGTGGCCCGCCAGAA 2291
Db      1566 GATTATCGAGAGCTGATCAAGAGAGAGAGGTGTACTGTAGCTGGGTGGCCCGCCAGAA 1625
Oy      2292 GGGGATCGGCGCGCAACGAGAGATGACCAAGCTGGTGAAGCAAGGAGCATCCGCAAGTGT 2351
Db      1626 GGGGATTTGGCGGCAACGAGAGCTGACCAAGCTGGTGAAGTGGGAGTTAAGAAAGTGTCT 1685
Oy      2352 GT 2353
Db      1686 GT 1687

RESULT 2
US-10-507-928-11
; Sequence 11, Application US/10507928
; Publication No. US20050266024A1
; GENERAL INFORMATION:
; APPLICANT: POWDERMED LIMITED AND GLAXO GROUP LIMITED
; TITLE OF INVENTION: ADJUVANT
; FILE REFERENCE: N. 88232B GCN
; CURRENT APPLICATION NUMBER: US/10/507, 928
; CURRENT FILING DATE: 2004-09-17
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 11
; LENGTH: 1689
; TYPE: DNA
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: nucleotide sequence of the coding insert in p731-RT3
US-10-507-928-11

Query Match      54.4%; Score 1342.8; DB 6; Length 1689;
Best Local Similarity 87.4%; Pred. No. 2.9e-206;
Matches 1470; Conservative 0; Mismatches 212; Indels 0; Gaps 0;

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Db	426	TGGCATTCAGATATCACTGACCAAGCTCTCCGCCAAGGACTTGGAGAGGAGCTCTCCCGCATTTT	485
Qy	1152	CCAGAGCAGCATGACCAAGATCTTGGAGCCCTTCGCGCCGCAACCCGAGATCGTAT	1211
Db	486	CCAGAGCTCCATGACCAAGATCTTGGAGCCGTTTGGAAAGCAAGACCAGATATGTAT	545
Qy	1212	CTAACGATCATGAGCAACTCTTACGTTGGGACAGCACTTGGAGATTCGGCAGACCCGCG	1271
Db	546	CTACCAAGTACATGAGCAAGCTTCAAGTGGGCTCTACCTGGAAATCCGGGACAGCATCCGAC	605
Qy	1272	CAAGATCCAGGAGCTGGCCGAACACTGTGTGCTGGGGCTTCAACACCCCGACAAAGAA	1331
Db	606	GAAGATTTGAGAGCTTGAGCAGCACTTGTGAGATGGGGCTTGACCACTTCGGACAAAGAA	665
Qy	1332	GCAACGAAGAGAGCCCCCTTCTGTGATGGGCTTACAGACTGCAACCCGACAACTGGAC	1391
Db	666	GGATCAGAAAGAGCGGCCCATCTCTGTGATGGGCTTACAGACTGCATCCCGACAACTGGAC	725
Qy	1392	CGTCAAGCCCATCGAGACTGCCGGAAGAGAGCTGGACCGTGAACGACATCCAGAACT	1451
Db	726	CGTCAAGCTTATCTGCTCTCCCGAAGAAAGACAGCTGGACCGTGAACGACATCCAGAACT	785
Qy	1452	GGTGGGCAAGCTGAATCTGGGGCAGCGACATCAACCCCGGCATCAAGTGGCGCAGCTGTG	1511
Db	786	GGTGGGCAAGCTCAACTGGGCTTACCGAGATCTATCCCGGATCAAGGTTGGCGCAGCTTG	845
Qy	1512	CAAGCTGTGCGCGGCGCCAAAGGACCTTGACCGACATCTGTGCCCTTGACCGAGAGGCGGA	1571
Db	846	CAAGCTGTGCGCGGCGCCAAAGGACCTTGACCGAGGATGATCCCTTCAAGAGAGGCGGA	905
Qy	1572	GCTGAGCTGTGCGCGAGAACCGGAGATCTGTGCGAGGCCCGTGTGACGCGCTGTACTACGA	1631
Db	906	GCTGAGCTGTGAGAAACCGGAGATCTGAAAGAGGCCCGTGTGACGCGCTGTACTATGA	965
Qy	1632	CCCCAGCAAGGACCTGTGGGCCGAGATCCAGAAAGAGGGCCAGCACAGTGGACCTTACCA	1691
Db	966	CCCCCTCAAGGACCTGTATGTGCGGAATCCAGAAAGAGGGCCAGGGCAGTGGACATACCA	1025
Qy	1692	GATCTACCAAGAGCCCTTCAAGAACCTTGAAGACCGGCAAGTACGCGCAAGATGCGCACGC	1751
Db	1026	GATTTTACAGAGGCCCTTTCAAGAACTTCAAGACCGGCAAGTACGCGCCGATGAGGGGGCG	1085
Qy	1752	CCACACCAACGAGCTGAGAGCAGCTGACCGAGGCGGTGCAAGAGATCGCCATGAGAGCAT	1811
Db	1086	CCACACCAACGAGTGTCAAGCAGCTGACCGAGGCGGTGCAAGAGATCAACGAGATCAT	1145
Qy	1812	CGTGATCTGGGGCAGAACCCCCAAAGTTCGCGCTGCCCATCCAGAGAGAGACCTTGGGAGAC	1871
Db	1146	CGTGATCTGGGGGAGAGAACCCCAAGTTCAAGCTGTGCTTCCAGAAAGAGACCTTGGGAGAC	1205
Qy	1872	CTGGAGGAGACGACCTACTGAGCAGGCAACCTGAATCCCGAGTGGAGGTTGTTGAACACCC	1931
Db	1206	GTGGTGAACCGAATTTTGGCAGGCAACCTTGAAATCCCGAGTGGAGGTTGTTGAATACAC	1265
Qy	1932	CCCCCTGTGAAGCTGTGTGTAACAGCTGGAAGAGAGCCCATCATCGCGCGAGACCTT	1991
Db	1266	TCTCTGTGGAGAGCTGTGTGTAACAGCTGGAAGAGAGCCCATCGTGGGGCGAGAACATT	1325
Qy	1992	CTACGTGAACGGCGCGCCCAACCGGAGACCAAGATTCGGCAAGGCGCGCTTACGTGACCGA	2051
Db	1326	CTACGTGAACGGCGCGCCCAACCGGAGAACCAAGCTTCGGGAAAGGCGCGGTATGTACCAA	1385
Qy	2052	CGGGGGCGGAGAAAGTGTGAGGCTGACGAGACCAACCAACGAGAAAGACCGAGCTGCA	2111
Db	1386	CGGGGGCGGAGAGAGGTGTCAACCTTGACGACACCAACCAAGAAAGCGAAGCTTGA	1445
Qy	2112	GGCATTCACAGCTGTGCGCTGACAGACAGCGGCAAGGAGGTAACATCTGACCGACAGCCA	2171
Db	1446	GGCATTCATATCTGTGCTTCCAGAGACTCGGCGCTGAGAGTGAACATCTGACCGACAGCCA	1505
Qy	2172	GTACGCGCTTGGCATCATTCAGGCGCCAGCCGACCAAGACGAGACGAGCTGTGACCA	2231

Db	1506	GTACGCGGTGGGCACTTTATTTCAGGGCCAGCCGACCAAGTCCGAGAGCGCAACTGTGTGAACCA	1565
Qy	2232	GATCATCGAGCAGCTTGATCAAGAAAGAGAAAGTGTACTTGAAGCTGTGGTGTCCCGGCCACAA	2291
Db	1566	GATTATCGAGCAGCTGTGATCAAGAAAGAGAAAGTGTACTTCCCTGTGGTGTCCCGGCCACAA	1625
Qy	2282	GGGCAATGGGGGGCAACGACGAGATGCACCAAGCTGTGTGACAAAGGAGCATCCGCAAGTGTCT	2351
Db	1626	GGGCAATGGGGGGCAACGACGAGTGTGCACCAAGCTGTGTGATGTGGGGGATTTAGAAAGTGTCT	1685
Qy	2352	GT 2353	
Db	1686	CT 1687	
RESULT 4			
US-11-029-465-11			
; Sequence 11, Application US/11029465			
; Publication No. US20050256070A1			
; GENERAL INFORMATION:			
; APPLICANT: Braun, Ralph P.			
; APPLICANT: Thomsen, Lindy			
; APPLICANT: Van-Wely, Catherine			
; APPLICANT: Erl, Peter			
; TITLE OF INVENTION: Adjuvant			
; FILE REFERENCE: 033267-015			
; CURRENT APPLICATION NUMBER: US/11/029,465			
; CURRENT FILING DATE: 2005-01-06			
; NUMBER OF SEQ ID NOS: 12			
; SOFTWARE: FastSeq for Windows Version 4.0			
; SEQ ID NO 11			
; LENGTH: 1689			
; TYPE: DNA			
; ORGANISM: Artificial Sequence			
; FEATURE:			
; OTHER INFORMATION: nucleotide sequence of the coding insert in			
; OTHER INFORMATION: p73i-RT3			
US-11-029-465-11			
Query Match 54.4%; Score 1342.8; DB 7; Length 1689;			
Best Local Similarity 87.4%; Pred. No. 2,9e+206;			
Matches 1470; Conservative 0; Mismatches 212; Indels 0; Gaps 0;			
Qy	6732	CCCCATCAGCCCCATCGAGACCGTGGCCCGTGAAGCTGAAGCCCGGACATGACCGGCCCA	731
Db	6	CCCCATCAGTCCCATCGAGACCGTGGCCCGTGAAGCTGAAGCCCGGAGATGACCGGCCCA	65
Qy	7332	GGTGAAGCAGTGGCCCCCGAGCCGAGAGAGATCAAGGCCCTGACCGGCATCTGGAGGA	791
Db	66	GGTCAAGCAGTGGCCACCTCACCGAGAGAGATCAAGGCCCTGTGGAGATCTGACCGGA	125
Qy	7932	GATGAGAGAGAGGGGCAAGTACCAAGATGAGCCCCGAGAACCCCTTCAACACCCCGGT	851
Db	126	GATGAGAGAGAGGGGCAAGATCAGCAAGATCGGGCTGAGAAACCATCAACACCCCGGT	185
Qy	8532	GTTGCGCATCAAGAGAGAGGACAGCACCAAGTGGGCGCAAGCTGTGTGACTTCCGAGCT	911
Db	186	GTTTGGCATCAAGAGAGAGGACAGCACCAAGTGGGCGCAAGCTGTGTGACTTCCGAGACT	245
Qy	9132	GAAACAAGGCAACCCAGACTTCTTGGAGAGTGCAGTGTGGGCAATCCCGGACCCGCGGCGCT	971
Db	246	GAATTAAGGAGACCCAGACTTCTTGGAGAGTGCAGTGTGGGCAATCCCGGACCCGCGGCGCT	305
Qy	9732	GAAAGAGAGAGAGGCGTGAACCGTGTGAGAGTGGGCGACGCTTACTTCAAGCGTGCCTT	1033
Db	306	GAAAGAGAGAGAGGCGTGAACCGTGTGAGAGTGGGCGACGCTTACTTCAAGCGTGCCTT	365
Qy	1032	GGACGAGGACTTCCGACAGTACACCGGCTTCAACCATCCCGACATCAACAAAGAGACCC	1091
Db	366	GGACGAGGACTTTTGAAAGTACACCGGCTTAAACATCCCATCTTCAACAAAGAGACCC	425
Qy	1092	CGGCACTCCGTTACCAATGTAACAGTGTCTGCCCGAGGGCTGAAAGGCAAGCCCGACGACTT	1155

Db	426	TGGCATCAGATATTCAGTACAAACGTCTCCCTCCCCCAAGGGCTGGAAAGAGGCTCTCCGCACATTTT	485
Qy	1152	CCAGAGCAGATGATCCAGATTCCTGAGGCCCTTCCTCCGCCCGCAATCCCGAGATTCGTGAT	1211
Db	486	CCAGAGCTCCATGACCAAGATCTCTGGAGCCGTTTCCGAAACAGAAACCCCATATTCGTCAAT	545
Qy	1212	CTAACGTAATGAGACACTGTATCGTGGGCAAGGACCTGGAGATGGCCAGACACCGCGC	1271
Db	546	CTACCACTAATGAGACCACTGTACGTGGGACTCTGACCTTGAATTCGAGGACGATTCGCAC	605
Qy	1272	CAAGATGAGGAGGTGGGCAAGGACCTGCTGCCTGGGGCTTTCACACCCCCGACAAAGAA	1331
Db	606	GAAATTTGAGAGGCTGAGGACGATCTGCTGAGATGGGGCTGACCACTCCGGACAAAGAA	665
Qy	1332	GCACCAAGAGAGGCCCTTCCTCTGTGATGGGCTTACAGCTGCACTCCCGACAAATGAGAC	1391
Db	666	GCATCAGAGAGAGCGGCATTCCTGTGATGGGCTTACAGCTCATCCCAACAAATGAGAC	725
Qy	1392	CGTCCAGCTCATCGAGCTGCCCGGAGAGAGAGCTGACCGTGAAGACATCCAGAAAGCT	1451
Db	726	CGTCCAGCTCATCGCTCTCCCGGAGAGAGACAGCTGACCGTGAAGACATCCAGAAAGCT	785
Qy	1452	GGTGGGCAAGCTGAACTGAGGCAAGCAGATCTACCCCGGATCAAGGTGGCCAGCTGTG	1511
Db	786	GGTGGGCAAGCTCAACTGAGGCTTACGACGATCTTATCCGGGATCAAGGTGGCCAGCTGTG	845
Qy	1512	CNAGCTGTGCGCGGCGCCAGAGGCTTGAACCGACATCGTGCCTGTGACCGAGAGGCGCA	1571
Db	846	CNAGCTGTGCGCGGCGCACNAGGCGCTTGACCGAGGTGATTCCTCTCACGAGAGAGCGCA	905
Qy	1572	GCTGGAGCTGGCCGAGAACCGCGAGATCTTGCGGAGCCGTGCAACGGCGTGTATCTACGA	1631
Db	906	GCTGAGCTGTGCTGAGAACCGGAGATCTTGAGAGAGCGCGTGTGACGGCGTGTATCTATGA	965
Qy	1632	CCCCAGCAAGGACCTGATGGGCGGAGATCAGAAAGAGGCGCACAGCAGTGTGACTTACCA	1691
Db	966	CCCCCTCAAGGACCTGATGCGCGAATTCAGAAAGAGGCGCACAGGCGAGTGTGACTTACCA	1025
Qy	1692	GATCTACCAAGAGGCTTTCAGAAACCTTGAAACCGGCAAGTATGCGCAAGATGTGCACCGC	1751
Db	1026	GATTTACCAAGAGGCTTTTCAGAAACCTCAGAACCGGCAAGTATGCGCAAGAGGCGCGC	1085
Qy	1752	CCACACCAAGCAGTGAAGCGCTGACCGAGCCGTGTGAGAAATTCGCATATGGAGACAT	1811
Db	1086	CCACACCAAGCAGATGTCAAGAGCTGACCGAGCCGTGTCAAGAAATTCAGACCGAGTCCAT	1145
Qy	1812	CGTATCTGGGGGCAAGCCCCCAAGTTCCGCTGCGCATTCAGAGAGGACCTTGGGAGAC	1871
Db	1146	CGTATCTGGGGGAAAGACCCCAAGTTTACAGTGTCTATCCAGAGAGACCTTGGGAGAC	1205
Qy	1872	CTGGTGAACCGACTCTGSCAGGACCACTGTGATCCCGAGTGGGATTCGTGAACAACC	1931
Db	1206	GTGGTGAACCGAATTTTGGCAGGCCACTTGTGATTCGAGATGGGAGTTTCGTGAATACAC	1265
Qy	1932	CCCCCTGTGAAGCTGTGGTATCAGCTGAGAGAGAGCCCATCATCGCGCCGAGACCTT	1991
Db	1266	TCCCTGTGATGAAGCTGTGGTATCAGACTCAGAGAGAGCCCATCTGTGGCGCGGAGACAT	1325
Qy	1992	CTACGTGACACGGCGCGCCCAACCGGAGAACCAAGATGGGCAAGGCGCGCTTACGTGACCGA	2051
Db	1326	CTACGTGACCGCGCGCGCCCAACCGGAGAACCAAGGCTTGGGAAAGGCGCGGATACGTACCA	1385
Qy	2052	CCGGAGCGGAGAGATCTGTAGCGCTGACCGAGACCAACCAACAGAGACCGAGCTGTCA	2111
Db	1386	CCGGAGCGGCGAGAGATGTGTACCTGTACCGACCAACCAACCAAGAGACGAGCTGTCA	1445
Qy	2112	GGCATTCAAGCTGGCCCTGCAAGACAGCGGCAAGAGGTGAACATCTGTACCGACACCCA	2171
Db	1446	GGCATTCTATCTCGCTCTCAGAGATCCGGCCTGTGAGGTGAACATCTGTGACCGACACCA	1505
Qy	2172	GTACGCCCTGGGACATATCAGAGCCCAAGCCGACCAAGAGCGAGACGAGCTGTGTACCA	2231
Db	1506	GTACGCGCTGGGCAATTTATCAAGCCCAAGCCGAGCAATGCCAGAGACGAACTGTGTATACCA	1565

QY	2232	GATCATCGACGACGTGATCAAAGAGGAAGAGGTGTACTGAGCTGGGTGCCGCCCAAA	2231
Db	1566	GATTATCGACGACGTGTGATCAAAGAAAGAAAGGTGTACTCTGCCCTTGGGTCCCGGCCCATTA	1623
QY	2292	GGGCGATCGCGCGCAACGAGCAGATCGCAAGAGCTGTGAGCAAGGCGCATCCGCAAGGTGCT	2351
Db	1626	GGGCGATTGCGCGCAACGAGCAGGTCTGACAGCTGTGAGTCCGGGGAATTAAAGGTCT	1687
QY	2352	GT	2353
Db	1686	GT	1687

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      RESULT 5
US-11-042-988-10
      / Sequence 10, Application US/11042988
      / Publication No. US20050244818A1
      / GENERAL INFORMATION:
      / APPLICANT: SILICIANO, ROBERT
      / APPLICANT: ZHANG, HAILI
      / APPLICANT: ZHOU, YAN
      / TITLE OF INVENTION: SINGLE CELL ANALYSIS OF HIV REPLICATION CAPACITY AND
      / TITLE OF INVENTION: DRUG RESISTANCE
      / FILE REFERENCE: 62760(71699)
      / CURRENT APPLICATION NUMBER: US/11/042,988
      / CURRENT FILING DATE: 2005-01-25
      / PRIOR APPLICATION NUMBER: 60/540,716
      / PRIOR FILING DATE: 2004-01-30
      / NUMBER OF SEQ ID NOS: 16
      / SOFTWARE: PatentIn Ver. 3.3
      / SEQ ID NO 10
      / LENGTH: 9719
      / TYPE: DNA
      / ORGANISM: Human immunodeficiency virus type 1
US-11-042-988-10

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Query Match	45.8%	Score 1132	DB 9	Length 9719
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Best Local Similarity 68.5%; Pred. No. 1.1e-172;  
 Matched 1536; Conservative 0; Mismatches 730; Indels 16; Gaps 4;

Match	Year	Competition	Score	Result
1	1950	FA Cup	1-0	Win
2	1951	FA Cup	2-1	Win
3	1952	FA Cup	1-0	Win
4	1953	FA Cup	1-0	Win
5	1954	FA Cup	1-0	Win
6	1955	FA Cup	1-0	Win
7	1956	FA Cup	1-0	Win
8	1957	FA Cup	1-0	Win
9	1958	FA Cup	1-0	Win
10	1959	FA Cup	1-0	Win
11	1960	FA Cup	1-0	Win
12	1961	FA Cup	1-0	Win
13	1962	FA Cup	1-0	Win
14	1963	FA Cup	1-0	Win
15	1964	FA Cup	1-0	Win
16	1965	FA Cup	1-0	Win
17	1966	FA Cup	1-0	Win
18	1967	FA Cup	1-0	Win
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20	1969	FA Cup	1-0	Win
21	1970	FA Cup	1-0	Win
22	1971	FA Cup	1-0	Win
23	1972	FA Cup	1-0	Win
24	1973	FA Cup	1-0	Win
25	1974	FA Cup	1-0	Win
26	1975	FA Cup	1-0	Win
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37	1986	FA Cup	1-0	Win
38	1987	FA Cup	1-0	Win
39	1988	FA Cup	1-0	Win
40	1989	FA Cup	1-0	Win
41	1990	FA Cup	1-0	Win
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53	2002	FA Cup	1-0	Win
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55	2004	FA Cup	1-0	Win
56	2005	FA Cup	1-0	Win
57	2006	FA Cup	1-0	Win
58	2007	FA Cup	1-0	Win
59	2008	FA Cup	1-0	Win
60	2009	FA Cup	1-0	Win
61	2010	FA Cup	1-0	Win
62	2011	FA Cup	1-0	Win
63	2012	FA Cup	1-0	Win
64	2013	FA Cup	1-0	Win
65	2014	FA Cup	1-0	Win
66	2015	FA Cup	1-0	Win
67	2016	FA Cup	1-0	Win
68	2017	FA Cup	1-0	Win
69	2018	FA Cup	1-0	Win
70	2019	FA Cup	1-0	Win
71	2020	FA Cup	1-0	Win
72	2021	FA Cup	1-0	Win
73	2022	FA Cup	1-0	Win
74	2023	FA Cup	1-0	Win
75	2024	FA Cup	1-0	Win

14 TGGCCGAGGCCATGAGCCAGGCCACCA---GGGCCAATCCTGATGCAGCGCAGCACT 70

1877 TGGCTGAAGCAATGAGCCAGTACAATTCAGCTACCATATGATGCAGAGGCAATT 1936

[illegible]

I I C A G G L L C C H A O C C H I C H I C H A S I S C I C M N C I O C C C U C A C N C W : w : w : -

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2056

1997 GAATTCAGGGCCCTAGGAAATAGGCIGIIGGAATGTGGAAAAGGAAACCAAA 202

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2057 TGAAGATTGTACTGAGACAGGCTAA-TTTT TAGGAGATCTGGCTTCCTACAAG 2115

..... 310

251 GCAGGCCCGCAGTCTCCACGCGAGCGAATCGCGCCACGACCCACCAAGCCGAC 310

2116 GGAAGGCCAGGGA TTTCTT CAGAGCAGACCAGAGCCACA GCGCCCA CCGAGA GAGAGC 2175

311 TGCAGGTGCGCG-----CGACAACCCCGCAGCGAGGCCGGCGCCGAGCGCCAGGGCA 364

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2176 TTCAGGCTCTGGGTAGAGACAACACTCCCCCCTCAGAAACGAGAGCCGATAGACACAGGA 223

365 -----CCCTGAACTTCCCCCAGATCACCCCTGTGGCAGCGCCCTGTGAGCATCAAGG 418

2235 CTGTAATCCTTTTAACTTCCCTCAGGTCACTCTTTGGCAACGACCCCTCGTCACATAAAGA 2295

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2296 TAGGGGGCACTAAAGGAAGCTCTATTAGATACAGAGCAGATGATACAGTATTGAAG 2355

OY	479	AGATGAGCTCGCCGGGCAAGTGGAAAGCCCAAGATGATCGGGGGCATCGGGGGCTTCAACA	538
Db	2356	AAATGAGTTTCCAGAGAAATGAGAAACCAAAAATATATGGGGGAATTGAAGTTTATCA	2415
OY	539	AGTGTGCGCAGTACGACCCAGATCTCTGATCTGAGATCTGCGGCAAGAAAGCCATCGGCA	598
Db	2416	AAAGTAAAGACAGTATGATCGAGTATCTCATATGAAATCTGTGACATTAAGACTATAGGTACAG	2475
OY	599	TGCTGATGGCCCCCAACCCCCGTGAACATCATCGCCGACATGCTGACCGAGCTGGGCT	658
Db	2476	TATTAGTAGGACCTACACCTGTCAACATTAATTGGAAGAAATCTGTTGACTCAGATTGGTT	2535
OY	659	GCAACCTGAACCTTCCCAATGACGCCCCCATCGAGACCGTCCGCTGAGGCTGAAGCCCGGCA	718
Db	2536	GCACTTAAATTTTCCCATATGACCTTATTTGACGTATACAGTAAATTTAAAGCCAGGAA	2595
OY	719	TGACACGGCCCCCAAGGTGAAAGCATGTGGCCCTTGAACCGAGAGAGATCAAGGCCCTTGACG	778
Db	2596	TGGATGGCCCCAAAGTTTAAACATGGCCATTGACGAAGAAAGAAATTAAGACATTAGTNG	2655
OY	779	CCATCTGCGAGAGATGAGAAAGAGGGCCAGATCACCAGATCGGCCCGAGAACCCCT	838
Db	2656	AAATTTGTATACAGAGATGAGAAAGAGGAGAAATTTCAAAATTTGGCGCTGAAATTCAT	2715
OY	839	ACAAACACCCCGTGTTCGCCCATCAAGAAAGAGACAGCAACGATGGCGCAAGCTGTGG	898
Db	2716	ACAAATATCTCAGATATTTGCCATTAAGAAAGAAAGAGACAGTACTTAAATGAGAAATTAAGT	2775
OY	899	ACTTCCGAGAGCTGAAACAAGCGCACCCAGACCTTCTGGAGGTGACGTGGGACTCCCC	958
Db	2776	ATTTTCAGAGAACTTAAATTAAGAGAACTCAAGACTTCTGGGAAGTTCAATTAGGAATACAC	2835
OY	959	ACCCCGCGGCGCTGAGAAAGAAAGAGCGTGAACGTGCTGGAACGTGGGCGACGCTTACT	1018
Db	2836	ATCCCGCAGGGTTTAAAGAAAGAAATCAGTAAACAGTACTGGATGGGTATGATCATTT	2895
OY	1019	TCAGGTGTCCTCTGGAACGAGACCTTCGCAAGTACACCGGCTTACCACTCCCAAGATCA	1078
Db	2896	TTTCAGTTCCTCTTATATAGAGCTTCAGAGAAAGTAAATCGCAATTTACATACCTATATAA	2955
OY	1079	ACAAACGAGACCCCGCGCATTCGCTACAGTACCAAGTCTGCGCCCGAGGCTGAAAGGCGCA	1138
Db	2956	ACAAATGAGACACGAGGAGTTAGATATCAGTATCAATGTGCTTTCACAGGGAATGAAAGGAT	3015
OY	1139	GCCCCAGCATCTTTCAGAGCAGCATGACCAAGATCTGGAAGCCTTCGCGCCCGCAAC	1198
Db	3016	CACCGACAAATATTCAAAGTAGCATGACAAAAAATCTTAGAGCTTTTAGAAAACAAAATC	3075
OY	1199	CCGAGATCTGTATCTAACATGACATGACAGCACTGTACGTGGGACGCACTCTGAGATCG	1258
Db	3076	CAGACATGTATCTATCATATACATGATGATTTGTATGTAGGATCTGACTTGAAGAAATG	3135
OY	1259	GCCAGACACGCGCCAAAGATCGAGGAGCTGCGCAACACTGCTGCGCTGGGGCTTCACTA	1318
Db	3136	GGCACATATGAAACAAAATTAAGAGAGCTGAGACAAACATCTGTTGAGTGGGGACTTACCA	3195
OY	1319	CCCCCGAACAAAGACACGAAAGAGCCCCCTTCTGTGATGGGCTTACGAGCTTGACC	1378
Db	3196	CACCGAGACAAAACAAATCATGAGAAAGAACCTCCATCTCTTTGATGGGTTATGAACTCCATC	3255
OY	1379	CCGACAGATGACCGGTGACGCCCATCGAGCTGCCCCGAGAGAGAGCTGGAACCGTGAAC	1438
Db	3256	CTGATTAATATGGAACATTAACGCTTATAGTGCTGCCGAAAAAGACAGCTGTCACTGTCAATG	3315
OY	1439	ACATCCAGAACGTGTGGCGAAGCTGAACGTGGGCCAGGCAAGTCTAACCCCGGACATCAAG	1498
Db	3316	ACATACAGAAAGTTAGTGGGGAATTTGAATTTGGGCAAGTCAAGTTTACCCAGGGAATTAAG	3375
OY	1499	TGCGCGACCTGTGCAAGCTGCTGCGCGGCGCCAAAGGCTCTGACCGACATCTGCGCCCTGA	1558
Db	3376	TAAAGCAATTATGTAAATCTCTTAAAGAGAACCAAGGACATTAAGAGATGATATACACTTAA	3435
OY	1559	CCGAGAGGCGCGAGCTGAGCTGCGCGAGAACCGGAGATCTCTGCGAGACCGCTTGACG	1618

Db	3436	CAGAGAAAGCAGAGCTAGAACTGGCAGAAAAACAGAGAGATTCTTAAAGAACCAATCAACTG	3495
Qy	1619	GCGTGTACTACAGACCCCGACAGAGACCTGTGTGCGCGAGATCCAGAGCGAGGCCACGACC	1678
Db	3496	GAGTGTATTATGACCCATCAAAAAGACTTAAATAGCAGAAATACAGAGCGAGGGCAAGGCC	3555
Qy	1679	AGTGGACCTACAGAAATCTACCAAGAGGCCCTCAAGAACTGGAACACCGGCAAGTACCGCA	1738
Db	3556	AATGACACTATCAAAATTTATCAAGAGCCATTTAAAAATCTGAAAAACAGAAAAATATGCA	3615
Qy	1739	AGATGCGCACCGCCACCAACCAACGATGAGAGAGCTGACCGAGGCGGTGCAGAAATCG	1798
Db	3616	GAAATGAGGGGCGCCACACTAATATGTATGAAAACAATTACAGAGCGAGTGCAAAAATTA	3675
Qy	1799	CCATGAGAGAGCATGTGATCTGGGGCAAGACCCCAAGTTCCGCTGCCCATCCAGAAAG	1858
Db	3676	CCACAGAAAGCATAGTAATATGGGAAAAAGACTCTAAATTTAACTGCCATACAAAAAG	3735
Qy	1859	AGACCTGGAGAGACTGTGTGAGCCGACTATCTGGGAGCGCACCTGTATCCCGAATGGGAGT	1918
Db	3736	AAACATGAGGAAACATGTGAGCAAGATGAGGCAAGCCACTGGAATTCCTAATGGAGAT	3799
Qy	1919	TGCTGAACACCCCCCCTGTGTGAAGCTGTGTACCAAGCTGGAAGAGAGCCCATCATCG	1978
Db	3796	TTGTTAATACCTCTCCCTTATGTAAATTTATGTATCAAGTTAGAAAGAACCCATAGTAG	3855
Qy	1979	GCGCCGAGACCTTCTACGTGAGCGGCGCCGCAACCGGAGACCAAGATCGGCAAGCGCG	2038
Db	3856	GAGCAGAAACCTTCTATGTAGATGGGCGAGCTAACAGGAGAGACTTAAATTAGAAAAAGCAG	3915
Qy	2039	GCTACGTGACCGACCGGGGCGCGAGAAAGATCTGTGACCTGACCGAGACCAACCAACGA	2098
Db	3916	GATATGTATTCAATATAGAGGAAAGACAAAAGTTGTCACTTACCTTACGACCAACAAATCGA	3975
Qy	2099	AGACCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGAGACAGCGGACGAGGTGAACATCG	2158
Db	3976	AGACTGATTTACAAAGCAATTTATCTAGCTTTGCAGAGATTGGGAGTTAGAAATTAACATAG	4035
Qy	2159	TGACCGACAGCGAGTACGCGCTCTGGGCATCATCAAGGCCAGCCCGACAAAGCGAGAGCG	2218
Db	4036	TAAACGACTCAACATATGTGATTAGGAATCATTAACAGACCAACAGATCAAAATGATCAG	4095
Qy	2219	AGCTGTGAACCAAGATCATTCGAGCGCTGATCAAGAGAGAGAGTGTACTGTAGCTGGG	2278
Db	4096	AGTTAGTCAATCAATATATATAGACGATTAATAAAAAGGAAAGAGTCTATCTGGCATGGG	4155
Qy	2279	TGCGCGCCCAACAAAGGACATCGGCGGCGCAACGAGCAGATGACAAAGCTGTGACAAAGGCA	2338
Db	4156	TACCAACACACAAAGAGAAATGGAGAAATGCAACAGTATGATTAATTAATCAAGTCTGGAA	4215
Qy	2339	TCCGCAAGGTGCTGTCTCTGAGCGGCAATCAT	2370
Db	4216	TCAGGAAGTACTATTTTATAGATGAATAGAT	4247
RESULT 6			
US-10-519-531-8			
Sequence 8, Application US/10519531			
Publication No. US20050244429A1			
GENERAL INFORMATION:			
APPLICANT: Folks, Thomas M.			
TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR			
FILE REFERENCE: 1414.0373U2			
CURRENT APPLICATION NUMBER: US/10/519,531			
CURRENT FILING DATE: 2004-12-27			
PRIOR APPLICATION NUMBER: PCT/US03/20325			
PRIOR FILING DATE: 2003-06-27			
PRIOR APPLICATION NUMBER: 60/392,630			
PRIOR FILING DATE: 2002-06-27			
NUMBER OF SEQ ID NOS: 8			
SOFTWARE: FastSeq for Windows Version 4.0			
SEQ ID NO 8			



LENGTH: 17207  
 TYPE: DNA  
 ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Description of Artificial Sequence: /note =  
 US-10-519-531-8

Query Match 6.3%; Score 156.2; DB 6; Length 17207;  
 Best Local Similarity 66.7%; Pred. No. 4.1e-17;  
 Matches 289; Conservative 0; Mismatches 128; Indels 16; Gaps 4;

14 TGGCCGAGGCGCATGAGCCAGCCACCA---GCGCCAACTCTGTATGAGGCGCAGCACT 70  
 Db 13954 TGGCTGAAGCAATGAGCCAAAGTAACAAATCCAGCTACATATATATACAGAAAGGCAATT 14013  
 Qy 71 TCAAGGCGCCCAAGGCGCATCATCAAGTCTTCACTGCGGCAAGAGGCGCCCATCGCC 130  
 Db 14014 TTAGAACCAAGAAAGAAAGACTGTTAAGTGTTCATTTGCGCAAGAGAGGCGCATAGCCA 14073  
 Qy 131 GCAAGCTGCGCGCCCCCGCAAGAGGCGCTGTGAGTGTGCGCAAGAGGCGCCACCA 190  
 Db 14074 AAAATTGAGGCGCCCTTAGAGAAAGGCTGTGAAATGTGAAAGAGGACACCA 14133  
 Qy 191 TGAAGACTGCAACGAGCGCCAGGCCAACTTTCCGCGAGAGACTGTGCTTCCCGCAG 250  
 Db 14134 TGAAGATTGTACTGAGAGACAGGCTAA-TTTTATTAGGGAAGATCTGGGCTTCCACAG 14192  
 Qy 251 GCAAGCGCGCGAGTTCCCGCAGGAGAACCGGCGCAACAGCCCGCAGCGGAGC 310  
 Db 14193 GGAAGCGCGAGGAATTTTCTTTCAGAGCAGACAGAGCCCAAGCCCGCAGAGAGAGC 14252  
 Qy 311 TGCAGGTGCGCG-----CGACAAACCCCGCAGGAGGCGCGCCGAGCGCCAGGCA 364  
 Db 14253 TTCAGGTTTGGGGAAGAGACAACTCCTCTCAGAGAGCAGAGCCGATACAGAGGA 14312  
 Qy 365 -----CCCTGAACCTTCCCGCAGATCACCTGTGCGAGGCGCCCTGTGAGCATCAAG 418  
 Db 14313 CTGTATCCTTTAGCTTCCCTCAGATCATCTTTGGAGAGGAGCCCTCGTCAATTAACA 14372  
 Qy 419 TGGGCGCGCCAGAT 431  
 Db 14373 GGGGAAGTGACAT 14385

## RESULT 7

US-10-519-531-2  
 Sequence 2, Application US/10519531  
 Publication No. US2005024429A1  
 GENERAL INFORMATION:  
 APPLICANT: Polke, Thomas M.  
 TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR  
 FILE REFERENCE: 14114.037302  
 CURRENT APPLICATION NUMBER: US/10/519,531  
 CURRENT FILING DATE: 2004-12-27  
 PRIOR APPLICATION NUMBER: PCT/US03/20325  
 PRIOR FILING DATE: 2003-06-27  
 PRIOR APPLICATION NUMBER: 60/392,630  
 NUMBER OF SEQ ID NOS: 8  
 SOFTWARE: FastSeq for Windows Version 4.0  
 SEQ ID NO 2  
 LENGTH: 1503  
 TYPE: DNA  
 ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Description of Artificial Sequence: /note =  
 US-10-519-531-2

Query Match 6.3%; Score 154.6; DB 6; Length 1503;  
 Best Local Similarity 67.6%; Pred. No. 8.3e-17;  
 Matches 282; Conservative 0; Mismatches 119; Indels 16; Gaps 4;

Qy 14 TGGCCGAGGCGCATGAGCCAGCCACCA---GCGCCAACTCTGTATGAGGCGCAGCACT 70  
 Db 1088 TGGCTGAAGCAATGAGCCAAAGTAACAAATCCAGCTACATATATATACAGAAAGGCAATT 1147  
 Qy 71 TCAAGGCGCCCAAGGCGCATCATCAAGTCTTCACTGCGGCAAGAGGCGCCCATCGCC 130  
 Db 1148 TTAGAACCAAGAAAGAAAGACTGTTAAGTGTTCATTTGCGCAAGAGAGGCGCATAGCCA 1207  
 Qy 131 GCAAGCTGCGCGCCCCCGCAAGAGGCGCTGTGAAAGTGTGCGCAAGAGGCGCCACCA 190  
 Db 1208 AAAATTGAGGCGCCCTTAGAGAAAGGCGCTGTGAAATGTGAAAGAGGAGACACCA 1267  
 Qy 191 TGAAGACTGCAACGAGGCGCCAGGCCAACTTTCCGCGAGAGACTGTGCTTCCCGCAG 250  
 Db 1268 TGAAGATTGTACTGAGAGACAGGCTAA-TTTTATTAGGGAAGATCTGGCTTCCACAG 1326  
 Qy 251 GCAAGCGCGCGAGTTCCCGCAGGAGAACCGGCGCAACAGCCCGCAGCGGAGC 310  
 Db 1327 GGAAGCGCGAGGAATTTTCTTTCAGAGCAGACAGAGCCCAAGCCCGCAGAGAGAGC 1386  
 Qy 311 TGCAGGTGCGCG-----CGACAAACCCCGCAGGAGGCGCGCCGAGCGCCAGGCA 364  
 Db 1387 TTCAGGTTTGGGGAAGAGACAACTCCTCTCAGAGCAGAGCCGATGACAAAGGA 1446  
 Qy 365 -----CCCTGAACCTTCCCGCAGATCACCTGTGCGAGGCGCCCTGTGAGCATCA 415  
 Db 1447 CTGTATCCTTTAGCTTCCCTCAGATCATCTTTGGAGAGAGCCCTCGTCAATTA 1503

## RESULT 8

US-10-507-928-3  
 Sequence 3, Application US/10507928  
 Publication No. US20050266024A1  
 GENERAL INFORMATION:  
 APPLICANT: POWDERMED LIMITED AND GLAXO GROUP LIMITED  
 TITLE OF INVENTION: ADJUVANT  
 FILE REFERENCE: N.88232B GCW  
 CURRENT APPLICATION NUMBER: US/10/507,928  
 CURRENT FILING DATE: 2004-09-17  
 NUMBER OF SEQ ID NOS: 12  
 SOFTWARE: PatentIn version 3.1  
 SEQ ID NO 3  
 LENGTH: 1503  
 TYPE: DNA  
 ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: nucleotide sequence of p55 gag insert in pGagOprpr2  
 US-10-507-928-3

Query Match 5.7%; Score 141.4; DB 6; Length 1503;  
 Best Local Similarity 69.0%; Pred. No. 1.1e-14;  
 Matches 223; Conservative 0; Mismatches 96; Indels 4; Gaps 2;

Qy 14 TGGCCGAGGCGCATGAGCCAGG-----CGACAGGCGCAACATCTGTATGAGGCGCAGCACT 70  
 Db 1088 TGGCCGAGGCGCATGAGCCAGGAGTGAAGTCTCGCAACCATATGATGAGAGGGAATT 1147  
 Qy 71 TCAAGGCGCCCAAGGCGCATCATCAAGTCTTCACTGCGGCAAGAGGCGCCCATCGCC 130  
 Db 1148 TCCGCAATAGGCGGAAGATCGTGAAGTGTTCATTTGGCGCAAGAGGCGTATACGGCC 1207  
 Qy 131 GCAAGCTGCGCGCCCCCGCAAGAGGCGTGTGAAAGTGTGCGCAAGAGGCGCCACCA 190  
 Db 1208 GCAAGCTGCGCGCCCTTAGAGAAAGGCGTGTGAAAGTGTGCGCAAGAGGAGACACCA 1267  
 Qy 191 TGAAGACTGCAACGAGGCGCCAGGCCAACTTCTCGCGAGAGACTGTGCTTCCCGCAG 250  
 Db 1268 TGAAGACTGTACAGAGACAGGCGCAA-TTTTCTTGAAGAAATTTGGCGGACTACAG 1326  
 Qy 251 GCAAGCGCGCGAGTTTCCCGCAGGAGAACCGGCGCAACAGCCCGCAGCGGAGC 310  
 Db 1327 GGGAGACTGTATTTTCTTGTGAAGAGGCGCCGAGCCAGCGCCCTGAGGAATCC 1386

QY 311 TGCAGGTGCGCGGACACCC 333  
Db 1387 TTCAAGTCCGAGGTGAGACCA 1409

## RESULT 9

US-11-029-465-3  
Sequence 3, Application US/11029465  
Publication No. US20050256070A1  
GENERAL INFORMATION:  
APPLICANT: Braun, Ralph P.  
APPLICANT: Thomsen, Lindy  
APPLICANT: Van-Mely, Catherine  
APPLICANT: Ercl, Peter  
TITLE OF INVENTION: Adjuvant  
FILE REFERENCE: 033267-015  
CURRENT APPLICATION NUMBER: US/11/029,465  
CURRENT FILING DATE: 2005-01-06  
NUMBER OF SEQ ID NOS: 12  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 3  
LENGTH: 1503  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: nucleotide sequence of the p55 gag insert in  
US-11-029-465-3

Query Match 5.7%; Score 141.4; DB 7; Length 1503;  
Best Local Similarity 69.0%; Pred. No. 1.1e-14;  
Matches 223; Conservative 0; Mismatches 96; Indels 4; Gaps 2;

QY 14 TGGCGGAGCCCATGAGCTAGG---CCACGAGCGCAATCTCTATGAGCGGCAACT 70  
Db 1088 TGGCGGAGCCCATGAGCTAGGAGAACTCCGCAACCATCATATGAGAGAGGAACT 1147  
QY 71 TCAAGGCGCCCAAGCGCATCATCAAGTCTTCACTGCGGCAAGAGGCGCACATCGCC 130  
Db 1148 TCCGCATCAGCGGAGAAATCGTGAAGTCTTCAATGCGGCAAGAGGCTATACCGCC 1207  
QY 131 GCAAGCTGCGGCGCCCGCCGCAAGAGGCTGCTGAACTGCGCAAGAGGCGCACCA 190  
Db 1208 GCAAGCTGCGGCGCCCGCTAGAGAAAGGCTGTTGAACTGCGCAAGAGGCGCACCA 1267  
QY 191 TGAAGACTGACCGAGGCGCAAGCTTCTTCCGAGAGACTGCGCTTCCCGCAAG 250  
Db 1268 TGAAGACTGACAGAAAGAGAGAGGCGCA-TTTTCTTGAAGAAATTTGCGCGAGCTACAG 1326  
QY 251 GCAAGCGCCGCGAGTTCCTCCAGCGAGAACCGCGCCCAAGCGCCGAGC 310  
Db 1327 GGGAGACTGTGTAATTTCTTGCAGAGAGCGCCGAGCCACCGCCCTTGAGGAATCC 1386  
QY 311 TGCAGGTGCGCGGACACCC 333  
Db 1387 TTCAAGTCCGAGGTGAGACCA 1409

RESULT 10  
US-10-858-730-142

Sequence 142, Application US/10858730  
Publication No. US20050255568A1  
GENERAL INFORMATION:  
APPLICANT: Bailey, Richard B.  
APPLICANT: Blomquist, Paul  
APPLICANT: Doten, Reed  
APPLICANT: Driggers, Edward M.  
APPLICANT: Madden, Kevin T.  
APPLICANT: O'Leary, Jessica  
APPLICANT: O'Toole, George  
APPLICANT: Trueheart, Joshua  
APPLICANT: Walbridge, Michael J.

APPLICANT: Yorgey, Peter S.  
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID  
TITLE OF INVENTION: PRODUCTION  
FILE REFERENCE: 14184-030001  
CURRENT APPLICATION NUMBER: US/10/858,730  
CURRENT FILING DATE: 2004-06-01  
PRIOR APPLICATION NUMBER: US 60/475,000  
PRIOR FILING DATE: 2003-05-30  
PRIOR APPLICATION NUMBER: US 60/551,860  
PRIOR FILING DATE: 2004-03-10  
NUMBER OF SEQ ID NOS: 364  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 142  
LENGTH: 3513  
TYPE: DNA  
ORGANISM: Streptomyces coelicolor  
US-10-858-730-142

Query Match 4.2%; Score 104.4; DB 6; Length 3513;  
Best Local Similarity 43.6%; Pred. No. 8e-09;  
Matches 905; Conservative 0; Mismatches 1131; Indels 42; Gaps 8;

QY 129 CCGCACTGCGCGCGCCCGCCGCAAGAGGCTGCTGAGAGCGGCAAGAGGCGCA 188  
Db 177 CCTCACCGCGCCGACATCTGCTGCTGTCAGAGAGACTTCCGCGCGGCTGCA 236  
QY 189 GATGAAGACTGACCGAGCGCCAGCCAACTTCTTCCGAGAGACTTGCTTCCCA 248  
Db 237 CTGCGTGAAGACCAACCTTCCGCGCCCAACCTCCGCGCGAGTGCATCTCC 296  
QY 249 GGGCAAGCGCGGAGTTCCTCCAGCGAGACAGAACCGCGCCCAAGCCCAAGCCGGA 308  
Db 297 CAGCGGTCACAGAACTGTCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 356  
QY 309 GCTGCAAGTGGCGGCGCAACACCCCGCAGAGCGCGCGCGCGCGCGCGCGCGCG 368  
Db 357 GTTGGCG 416  
QY 369 GAATTCCTCCCAAGATCACTCTGTTGAGCGCGCGCGCGCGCGCGCGCGCGCG 428  
Db 417 G-----CTCCCACTCTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 467  
QY 429 GATCAAGAGCGCTGCTGACACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 488  
Db 468 GCGCAAGCGCGAGAGCTGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 527  
QY 489 GCCCGCAAGTGAAGCGCCCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCG 548  
Db 528 GAGCTGCTCCAGACCAAGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 587  
QY 549 GTACACCAAGATCTGATCGAGATCTGCGCGCAAGAGAGCGCATCGGCAACCGTGTATCG 608  
Db 588 CTGCACTGCGCGCTCATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 647  
QY 609 CCCCAAGCGCGTGAATCATTCGCGCGCAACATGCTGACCCAGCTGAGCTGCA 668  
Db 648 CTG-----GAGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 701  
QY 669 CTTCCTCATGAGCGCCCATTCAGAGACCGTGCCTGTAAGCTGAAGCGCGCGCG 728  
Db 702 CCGCTTAACCTGCG 758  
QY 729 CAAGTGAAGAGTGGCGCGCTGACCGAGAGAAATCAAGGCGCTGACCGCGCATCTGCA 788  
Db 759 CCGGCACTCCCGCATCTCCGCTGACTGCTGCTGCTGCTGCTGCTGCTGCTGCT 818  
QY 789 GAGATGAAGAGAGGCAAGATC---ACCAAGATCGCGCGCGCGCGCGCGCGCG 845  
Db 819 GAGCGGCGCGCACTAACCGCGTGAACCGCGCGCGCGCGCGCGCGCGCGCGCG 878  
QY 846 CCCGCTGTTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 905  
Db 879 GCGGAGTGAAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 938

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QY 906 CGAGCTGAACAAGCGCACCCAGACTTCTGGAGGTGCACTGGGCATCCCCCAACCCCGC 965
DB 939 CCAAGTGTCTGAGCGGGTCCGGGACACC-----GCCCCCAACCGGACCGGACCC 986
QY 966 CGGCTTGAAGAAGAAGAGGTGAACGATGCTGAGCGTGGGGCCAGCGCTTCTTCAAGGCT 1025
DB 987 GCGGCCCGAGCGCGCGCGCTGCTCTTACAGACCGGTGCCCTTCCGCGAGAACACTTC 1046
QY 1026 GCCCTTGAACGAGACTTCCGCAAGTACACCGCTTACCATCCCCAGCATCAACAAGA 1085
DB 1047 CTACTGTGCTATCGCGGAGCGGACCAAGCGGCTCAAGAGTTCCGAGAGCCAT 1106
QY 1086 GACCCCGGCGCATCGCTACCAAGTACAGTGTCTCCCAAGGCTGGAAGGGAGCCCAAG 1145
DB 1107 GCTGACCGGCGCTGGAGCACTGCGTGAATGGCCCGGACCAAGATCCGAGAGGGCGC 1166
QY 1146 CATCTTCCAGAGACATGACCAAGATCTTGAAGCCCTTCCGCGCGCGCAACCCGAGAT 1205
DB 1167 GCACATGTCTCGACTCTGTGCTGACTTACGTGCGGAGCGCGGTGCGCGACATGAGAGA 1226
QY 1206 CGTGAATCAACAGTACATGAGACGACTTGAAGTGGGACGCACTGAGATCGGACAGA 1265
DB 1227 ACTGGCCGGCGGTTTCCGACCGCTTCCACGCTGCGGATCTGCTGACTCCACCGAGGT 1286
QY 1266 CGCGCCCAAGATCGAGAGCTGCGAGACGCTGTGCGTGGGCTTCAACACCCCGCA 1325
DB 1287 CGACCTCATCCGGGCGCGGTGGAAGAGTCCGGCGCGCGGCGGTGATCACTCGGTCA 1346
QY 1326 CAAGAACAACAAGAGAGCCCTTCTGTGATGGGCTACAGCTGACCCCGAGCA 1385
DB 1347 CTACAGAGACGCGCGCGCGCGCGGTGCGCGGTGCGCGGTGCGCGGTGCGCGGTGCG 1406
QY 1386 GTGAGACCGTGCAGCCCATGAGCTGCGCGGAGAGAGAGTGAACGATCA 1445
DB 1407 GCAAGCGCGCGCGGTGATGCGGTGACATCGAGAGGTGGAGAGAGCCCGGACCGCGCA 1466
QY 1446 GAAGCTGTGGGCAAGCTGAGCTGGGCGCAGCGCATCTACCCCGCATCAAGGTGGCGCA 1505
DB 1467 GAAAGAAAGTTCGAGATGCGCGGACGGCTCATTCAGACGCTCACCGGCACTGGGGCATCA 1526
QY 1506 GCTGTGCAAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1565
DB 1527 CGAGTCCGACATCTGTGACTGCTGACTTCACTTCACTTCACTTCACTTCACTTCACT 1586
QY 1566 GCGCGAGCTGAGTGGCGGAGAACCGCGAGATCTTGGCGGAGCGCGGTGACGCGGTGA 1625
DB 1587 CCGCAAGAGACGGCTTGGCCCACTTCAGAGGAGCATCCGAGAACTCAAGCGGGCGCACCGGA 1646
QY 1626 CTACGACCCCAAGAGAGACTTGTGGCGGAGATCCAGAAAGAGAGGCGCACGACATGAGAC 1685
DB 1647 CGTGCAGACACGCTGGCTGTGCGAACTCTTCCGCTTCAACCCCGCGCGCGCAT 1706
QY 1686 CTACAGATCTTACAGAGGCTTCAAGAACTTGAAGACCGGCAAGTACGCGCAAGTGGC 1745
DB 1707 CCGTCAACTCTGTCTTCTGACGAAATGCTCAAGGCGCGCTGGAACCTGCGCATCTGT 1766
QY 1746 CACCGGCCACACAGAGAGTGAAGAGCTGACCGAGGCGCGGTGCAAGAAATGCGCATGAG 1805
DB 1767 GCAAGGAGAGACATCTTGCAGATGCGCGCGCTTGA---GAAAGAGAGGTCAACACGCG 1823
QY 1806 GAGCATGTGATCTGGGGGCAAGACCCCAAGTTCCGCTTCCCATCCAGAGAGAGCTTG 1865
DB 1824 CTTGAACTTATCTACAGCCGCGCGCGCGGAGGCTACGACCCCTCTGAAAA---GCTCAT 1880
QY 1866 GAGAGACTGTGAGACGACTTACTGAGGCGCACCTGATCCCGAGTGGAGTTCTGAA 1925
DB 1881 GAGGCTTTGAGAGGGGCGCACCGCAAGTGTGAGAGGCTTCAAGGCGAGAGAACTGGC 1940
QY 1926 CACCCCGCGCTGTGAGGCTGTGTGCTACAGCTGAGAGAGAGCCCATCATCGCGCGCA 1985
DB 1941 CGCGCTTCCGCTGAGAGAGCGCTTCAAGCGCGCATCATGACGCGAGAGAAAGAGCGCT 2000

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QY 1986 GACCTTACGTGAGACGCGCGCGCAACCGGAGACCAAGATGCGCAAGCGCGCTACGT 2045
DB 2001 CGAACAGAGACTTCAGACAG---GCCCTCCGGAGACGCGCGCGCTCGAGATGTCACAG 2057
QY 2046 GACGACCGGGGCGCGGAGAAAGATGAGCTTGAACGAGACCAACCAAGAGAGCCGA 2105
DB 2058 CACCTGCTGACAGTATGAAAGGTGTCGCGGAGACTGTTCGGCTCGGCGAGATGCACT 2117
QY 2106 GCTGACAGCCATTCAGAGTGGCGCTGACAGGACGCGGCGAGAGTGAACATGTGACCGA 2165
DB 2118 GCGGTGTGCTTCCAGTCCGCGGAGATCATGAAGACGCGGTGCGCGCATCTGAGACCGCA 2177
QY 2166 CAGCAGTACGCGCTTGGGATCATCAGGCCCAAGCCG 2203
DB 2178 CATGAGAAAGACCAAGACAGACGAGAGGAGGACGATCG 2215

RESULT 11
US-10-858-730-38
; Sequence 38, Application US/10858730
; Publication No. US20050255568A1
; GENERAL INFORMATION:
; APPLICANT: Bailey, Richard B.
; APPLICANT: Blomquist, Paul
; APPLICANT: Doten, Reed
; APPLICANT: Driggers, Edward M.
; APPLICANT: Madden, Kevin T.
; APPLICANT: O'Leary, Jessica
; APPLICANT: O'Toole, George
; APPLICANT: Trueheart, Joshua
; APPLICANT: Walbridge, Michael J.
; APPLICANT: Yorey, Peter S.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID
; FILE OF INVENTION: PRODUCTION
; FILE REFERENCE: 14184-030001
; CURRENT APPLICATION NUMBER: US/10/858,730
; PENDING FILING DATE: 2004-06-01
; PRIOR APPLICATION NUMBER: US 60/475,000
; PRIOR FILING DATE: 2003-05-30
; PRIOR APPLICATION NUMBER: US 60/551,860
; PRIOR FILING DATE: 2004-03-10
; NUMBER OF SEQ ID NOS: 364
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 38
; LENGTH: 2736
; TYPE: DNA
; ORGANISM: Streptomyces coelicolor
US-10-858-730-38

Query Match 4.1%; Score 100.2; DB 6; Length 2736;
Best Local Similarity 41.1%; Pred. No. 3.8e-08;
Matches 890; Conservative 0; Mismatches 1258; Indels 15; Gaps 2;

QY 85 CGCATCATAGTGTCTTCAACTGCGGCAAGAGAGGCGCATATGCGCAACTGCGCGCGC 144
DB 376 CGGACCTTAAGTGGCGCGCGCTTCAACCGGCACTTCAAGAGCGCGCGCGCGCTGC 435
QY 145 CCGCGCAAGAGAGGCTGTGAGAGTGGCGGCAAGAGAGGCGCACCAATGAAGACTGCAAC 204
DB 436 GTCTCAAGAGTGGCGCGCATGCGCGCGCTCTGAGACACCGGCTCAACGATGCGAGC 495
QY 205 GAGCGCGAGGCACTTCTTCCGCGAGACCTGCGCTTCCCGGAGGAGAGGCGCGCGAG 264
DB 496 CGCGCGCGCTGAGACACCGCGCTTCCGCGAGACATGACCTTGTCTGCGAGACGAGAG 555
QY 265 TTCCCGAGAGAGAGAACCGCGCGCAACAGCCCAAGCGCGAGGCTGAGGTGCGCGCGC 324
DB 556 CTGCGGTGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 615
QY 325 GACCAACCCCGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 384
DB 616 GAGCTGACCTTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 675

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QY 385 ACCCTGTGGCAGCGCCCTGTGTGA-----GCATCAAGTGTGGCGGCAGATCAAGAG 438  
Db 676 GCCCGGCTCAAGGCTCCCGAGACACCGGCCCTCTCACTTCCGACCTGTATGTGGCGC 735  
QY 439 GCCCTGTGAACACCGGCGCCGACGACCGTGTGAGAGATGAGCTTCGCGGCAAG 498  
Db 736 GACCGGACGCGCAACCCCAAGTCACCCCGAGGTGACCTGTGAGAGTCTTATCTCCAG 795  
QY 499 TGGAAAGCCCAAGATGATGTGGGCGCATGTGGCGGCTTTCATCAAGTGTGCGCAGATGACAG 558  
Db 796 CACGAGACGCGGCTAATGAGCGCTTGGAGATGATGAGAGCTGGCGGCTTCTCTCC 855  
QY 559 ATCTGTATGAGATCTGTGGCAAGAAAGGCATTCGCGACCGTGTGATGTGGCGCCCA 618  
Db 856 AACTTCATTCGGGTAAGCGGTGTGCGACCGAGGAATGTCTGCGCTGCTCAGGCGGACCTG 915  
QY 619 GTGAACATCATGTGGCGGCAATGTCTGACCCGACTGTGGCTGTGACCTTGAACCTTCCCATC 678  
Db 916 GAAAGCTCTCCCGAGATGAGCCCGCTTACAAAGCGCTCAAGCGCGAGAGACCTTACCGG 975  
QY 679 AGCCCATATGAGACCGTGTGGGCTGAAGCTGAAGCGCCGAGATGAGACGCGCCCAAGGTGAAG 738  
Db 976 CTCAAAGGCACTGTATCTCGCAGAGCTGTGAAGAACACCAAGAGCGCTGTGCCAAGGG- 1034  
QY 739 CAGTGGCCCTGTGACCGAGAGAAAGATCAAGGCGCTGACCGCCATCTGTGAGAGATGTGAG 798  
Db 1035 -----CACCCCGCAGAGAGCGCGCGGACTTACTCTGGGACCGCCAGCTCATGAC 1086  
QY 799 AAGGAGGCGAAGATTCACCAAGTCCGCGCCGAGAACCCCTTACACACCCCGGTGTGCGC 858  
Db 1087 GACCTGCACATGTGTCAAGCTCTGTGCGGACACCGCGGCGGCTGTGTCGCGACCGG 1146  
QY 859 ATCAAGAAAGAAAGACAGACCCAAAGTGTGCGCAAGCTGTGTGAACCTTCCGAGCTGAACAAG 918  
Db 1147 GCCTCTGCGCGGACCATTCGACCTCTGTGCGCTTGTGCGCTTCAGCTGCCACCATGTGAC 1206  
QY 919 CGCACCCAGGACTTCTGTGAAGGTGTGAGCTGTGACATCCCCACCGCGCGGCTGTGAAGAG 978  
Db 1207 GTCCGCGAGACAGCGGAGCGCCACCAACGCGCTTGGCAGCTTTGACCGGCTGTGCGC 1266  
QY 979 AAGAAAGAGCTGTGACGTGTGTGACGTGTGAGCGACGCTTACTTACGCTGTGCGAG 1038  
Db 1267 GAGGAGTCTGTGCGCTACGCGGACATGTGCGCGGAGTACCGGACCAACCTCTCCGCAAG 1326  
QY 1039 GACTTCGCGAAGTACACGCGCTTTCACCAATCCCGACATCAACAAGAACCCCGGCGATC 1098  
Db 1327 GAATGCGCTCCGAGGCGCTGTGCGCGCCCGCGCGCGCTGTGAGCGCGCGGCGAG 1386  
QY 1099 CGCTACAGTACCAACGTGTGTGCGCGCGGCTGTGAAGGCGAGCGCCGACATCTTCCAGAGC 1158  
Db 1387 AAGAACCTTCGGGTCTTCCAGACCGTCCGCGCGCGCTTGAAGTCTTGGGCGCGAGGTC 1446  
QY 1159 AGCATGACCAAGATCTGTGAGCGCTTCCGCGCGCGGACCCCGAGATGTGTATCTTACAG 1218  
Db 1447 ATCGAGTCTTACATCATCTTCAATGTGCCAGGCGCGCGGACGATCTTGTGCGCGCGGTA 1506  
QY 1219 TACATGAGACGACTGTGTGTGCGGAGACCTGTGAGATCGGCGACAGACCGGCGCAAGATC 1278  
Db 1507 CTGGCGCGGAGGCGCGGCTGTATGCACTGTGACGCGGCTGTGGCAAGATGTGGATGTGTG 1566  
QY 1279 GAGGAGCTGTGCGAAGACCTGTGTGCGGTGTGAGCTTTCACACCCCGCGCAAGAGACCGAG 1338  
Db 1567 CCGGTGTGAGAGACACCGAGAGCTGAAGGCGCGCGACACATCTGTGAAGACCTGTGCTC 1626  
QY 1339 AAGAGCCCGCTTCTGTGTGTGTGAGTGTGAGTGTGACACCCGACAAAGTGTGACGCTGAG 1398  
Db 1627 GCCGACCCCTCTTACCGGCGCTGTGTGCGCTGTGCGCGGCGAGTGTGAGAGGTCACTGTCTC 1686  
QY 1399 CCGATGTGAGTGTGCGGAGAGAGAGAGTGTGAGACCGGTGAACGATCCAGAGTGTGTGGG 1458  
Db 1687 GAGTACTCCGACTCTTCCAAAGTTGTGGCGGTATTCACACAGCAGTGTGAATTCACCGC 1746  
QY 1459 AAGTGAATGTGGCGGACGATCTTACCCCGGATCAAGTGTGCGCAGCTGTGCAAGCTG 1518

Db 1747 GCCCAGCGCGGCTGTGCGCGAGTGTGCGCCACCGCTTACCGGCGGTACCGGCTGTGCTTCCAC 1806  
QY 1519 CTGGCGCGGCGCAAGGCGCTGTGACCGACATGTGTGCGCTTGTGACCGGAGAGGCGCACTGTGAG 1578  
Db 1807 GCGCGCGGCGGACGCTGTGTGCGCGGCGGCGGCGGCGCCACCGACGAGCGCATCTTGGCCGAG 1866  
QY 1579 CTGGCGGAGAACCGGAGATCTGTGCGGAGCCGCTGTGACCGCGGTGTACTAGACCCGAGC 1638  
Db 1867 CCGTGGGAGACCGCTGTGAGGCGGAGATCAAGGTCAACCGAGAGGCGAGGTCTATCTCCGAC 1926  
QY 1639 AAGGACTGTGTGCGCGAGATTCAGAGCAGGCGCAACGACGATGGAACCTTACAGATCTTAC 1698  
Db 1927 AAGTACTCTATCCCGCGCTGTGCGCGGAGAACTGTGAGCTGTGACCGTGTGCGGCGCACCTTC 1986  
QY 1699 CAGGAGCCCTTCAAGAACTGTGAACCGGCGAAGTACGCGCAAGATGTGCGGACCGCCACAGC 1758  
Db 1987 CAGGCTGTGCGCTGTGACACCGCGCGCCGCGCGAGTCCGAGAGCGCTGTGCGCGCTGTGGAG 2046  
QY 1759 AACGACGTGAAGCAGCTGTGACCGAGCGCGTGTGAGAAAGTGTGCAATGTGAGAGCATGTGTATC 1818  
Db 2047 GCGCGATGTGACGCTGTGTCTCCGACGCGCGCCACACCGCTTACCGGCGACCTGTGTGAAGGAC 2106  
QY 1819 TGGGCGAAGACCCCAAGTTCTGCGCTGTGCGCTTGTGCAAGAGAGACCTGTGAGACCTGTGTG 1878  
Db 2107 CCGGACCTGTGCGACCTTACTTGTGTGCGCTTGTGCGCTTGTGCGACGCTGTGCGGACCTGTGAC 2166  
QY 1879 ACGGACTATGTGCGAGGCGCACCTGTGATCCCGAGTGTGAGGAGTGTGTGAACACCCCGCGCTG 1938  
Db 2167 CTGGGCTGTGCGGCGCTTCCGCTGCGCGCGCGCTGTGCGGCTGTGTGTGAGAGATGTGCGCGC 2226  
QY 1939 GTGAAGCTGTGTGTACGAGCTGTGAGAGAGGCCATCATGTGCGCGCGGACCTTGTACGTG 1998  
Db 2227 ATCCGT 2286  
QY 1999 GACGCGCGCGCAACCGGAGACCAAGATGTGCGCAAGCGCGCTTACGTGACCGAGCGGCGC 2058  
Db 2287 GGTCTCGGCGCTCAAGGCGCTGTGCGGAGCGGCGCTGTGACACCGTGTGTGAGAGATGTGAC 2346  
QY 2059 CGGCAAGAAATGTGTGACGCTGTGACCGAGACCAACCAAGAGACCGAGCTGTGAGCGGCGATC 2118  
Db 2347 CAGGAGTGTGACCTTCTTGTGCACTTGTTCACAGTGTGAGATGACCTTGTGCGCAAGGCGC 2406  
QY 2119 CAGCTGCGCTGTGAGAGACGCGAGCGAGAGGTGAACATGTGTGACCGACAGCAGTGTGCGC 2178  
Db 2407 GACTGTGCGATGTGCGCGGACGATGATGTGACACCGTGTGTGCGGAGAGCTCAAGAGAGTGTG 2466  
QY 2179 CTGGGCAATCATCAAGCGCGGACCGCGACGAGCAAGAGCGAGAGCTGTGTGATCAATGTATC 2238  
Db 2467 TTGACACATCAAGGCGGAGACGAGAGCTCAACGCTGTGCGGAGGTCTGTGCGGTGTGCGCGC 2526  
QY 2239 GAG 2241  
Db 2527 GAG 2529

RESULT 12  
US-11-075-185-57  
; Sequence 57, Application US/11075185  
; Publication No. US20050266434A1  
; GENERAL INFORMATION:  
; APPLICANT: REEVES, CHRISTOPHER D  
; APPLICANT: JULIEN, BRYAN  
; APPLICANT: REID, RALPH  
; TITLE OF INVENTION: BIOSYNTHETIC GENE CLUSTER FOR AMBROTICINS  
; FILE REFERENCE: 010099.03  
; CURRENT APPLICATION NUMBER: US/11/075.185  
; PRIOR FILING DATE: 2005-03-07  
; PRIOR APPLICATION NUMBER: US 60/551.103  
; PRIOR FILING DATE: 2004-03-08  
; PRIOR APPLICATION NUMBER: US 60/568.290  
; PRIOR FILING DATE: 2004-05-04  
; NUMBER OF SEQ ID NOS: 61



Db 11682 CCGGCGGAGAACCGCCGCGAGATCTGCGCGAGGTCGTGAGAGAGTGGCGCGCGC 11741  
Qy 758 AGAAGATCAAGAGCCCTGACCGGCACTTGGCGAGATGAGAGAGGCAAGATTCACA 817  
Db 11742 TCGAGTCCGAGGTCGACCGCCCTCTCGAGCGGCTGCGCGGAAACAGACGAGCCGC 11801  
Qy 818 AGATCGGCCCCGAGAACCCCTTACAAACCCCGTGTTCGCATCAAGAAAGAGACACA 877  
Db 11802 TGGCGCTCTTGAAGAACTCGACTGGAAGCGCACATCCGAGAAAGCTGAAGGGGTGG 11861  
Qy 878 CCAAGTGGCGCAAGCTGTGTGAATTTCGCGAGCTGGAACAGACGCCACCGAGACTTCTGGG 937  
Db 11862 ACGGAGGCGCGCGCGCTCTCTGTCGCGAACAGCTTATTTCTGGGCGAACCGAGCGAA 11921  
Qy 938 AGGTGCACTGGGATCCCGCACCCCGCGCGCTGAAGAGAGAGAGAGAGAGAGAGAG 997  
Db 11922 GAGCAGATGGAGAGTGGGCGCATCTCTGTGACAGTCCGGCTCGATGGGCGAGAGCGTCG 11981  
Qy 998 TGAACGTGGGCGAGCGCTTACTTCAAGCTGCGCCCTGSAAGAGACTTCCGCAAGTACACG 1057  
Db 11982 TCTACAGCTCATATGCGCGGCGATCTTGGGTGCTGACGTCTCCGACCCGCGTCC 12041  
Qy 1058 CTTTACCATCCCGACATCAACAAAGAGCCCGCGCATCCGCTACCAATCAACGTGC 1117  
Db 12042 TCTTCTTGAACACGAGGTCTGACAGTCACTCGATGCTGTGATCCGATCGAGTGC 12101  
Qy 1118 TGCCCCAGGGCTGGAAGGGGAGCCCCAGCATCTTCCAGAGAGATGACCAAGATCTCGG 1177  
Db 12102 TGTTCACGGCGAGCTCGGCGGCGACGACATCAACCGCGCGGTGACCTTACGCCACG 12161  
Qy 1178 AGCCCTTCGCGCGCGCAACCCCGAGATCGTATCTACAGATAGATGAGACGACTGTACG 1237  
Db 12162 CGAATCTCATGAGAGAGACCGGAGAGAGAGCTGTCTATCTGATACCGAGCTGTTCAGG 12221  
Qy 1238 TGGGAGGAGCACTTGAGATCGGCGACGCGCGCCAGATGAGGA 1283  
Db 12222 GCGGCAACGCGAGAGCTGTGCGCGCATGCGCGCACCTGCGGA 12267

RESULT 14  
US-11-075-185-55  
; Sequence 55, Application US/11075185  
; Publication No. US20050266434A1  
; GENERAL INFORMATION:  
; APPLICANT: REEVES, CHRISTOPHER D  
; APPLICANT: JULIEN, BRYAN  
; APPLICANT: REID, RALPH  
; TITLE OF INVENTION: BIOSYNTHETIC GENE CLUSTER FOR AMBRUTICINS  
; FILE REFERENCE: 010099.03  
; CURRENT APPLICATION NUMBER: US/11/075,185  
; PRIOR APPLICATION NUMBER: US 60/551,103  
; PRIOR FILING DATE: 2004-03-08  
; PRIOR APPLICATION NUMBER: US 60/568,290  
; PRIOR FILING DATE: 2004-05-04  
; NUMBER OF SEQ ID NOS: 61  
; SOFTWARE: PatentIn version 3.3  
; SEQ ID NO 55  
; LENGTH: 1386  
; TYPE: DNA  
; ORGANISM: Sorangium cellulosum  
US-11-075-185-55

Query Match 3.6%; Score 88.6; DB 7; Length 1386;  
Best Local Similarity 44.0%; Pred. No. 2.8e-06;  
Matches 373; Conservative 0; Mismatches 474; Indels 0; Gaps 0;

Qy 937 GAGGTGACGCTGGGATCCCGACCGCGCGCTGAAGAGAGAGAGAGAGAGAGAGAGAG 996  
Db 31 GAGCGGGGCGCTGTGCGAGCTCTGACGCGCGGCTCAAGAGAGAGAGAGAGAGAGAGAG 90  
Qy 997 CTGACGCTGGGCGAGCGCTTACTTACGCTGCGCCCTGAGCAGAGAGCTTCCGAGATACAC 1056

Db 91 TGGGCAAGTGGCGCGCGCGAGAGGCTTGAGCTCTCTCGAGGAGAGAGAGAGAGAGAG 150  
Qy 1057 GCTTTCACATATCCAGCATCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1116  
Db 151 GTACCGACATGACATAGCGCGGAGATAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 210  
Qy 1117 CTGCGCGAGGAG 1176  
Db 211 AACGCGCGCGATGCGCGGCTCATGTGATCACCGCGTTCGAGAGAGAGAGAGAGAGAG 270  
Qy 1177 GAGCGCTTTCGCGCGCGCGAG 1236  
Db 271 TCGGCGATTCGCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 330  
Qy 1237 GTGGGAG 1296  
Db 331 CGGCTTACCGTTCAG 390  
Qy 1297 CTGCTGCGCTGGGAGCTTCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1356  
Db 391 CGGCGCGCGGAG 450  
Qy 1357 TGAATGGGCTACAGAGCTGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1416  
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Qy 1417 AAGGAG 1476  
Db 511 GAGGAG 570  
Qy 1477 CAGATTCACCCCGGAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1536  
Db 571 GAGGAG 630  
Qy 1537 CTGACCGACATCTGCGCGCTTGAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1596  
Db 631 GAGGAG 690  
Qy 1597 ATCTGCGAG 1656  
Db 691 TTGCGCGGAG 750  
Qy 1657 ATCCAG 1716  
Db 751 CTCAG 810  
Qy 1717 CTGAAG 1776  
Db 811 GAGGAG 870  
Qy 1777 ACGGAG 1783  
Db 871 ATCGAG 877

RESULT 15  
US-10-522-037-2  
; Sequence 2, Application US/10522037  
; Publication No. US20050282166A1  
; GENERAL INFORMATION:  
; APPLICANT: LIBRAGEN  
; TITLE OF INVENTION: Method for the expression of unknown environmental DNA into adapt.  
; FILE REFERENCE: B0149W0  
; CURRENT APPLICATION NUMBER: US/10/522,037  
; CURRENT FILING DATE: 2005-01-24  
; NUMBER OF SEQ ID NOS: 16  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 2  
; LENGTH: 37507  
; TYPE: DNA  
; ORGANISM: Artificial sequence  
; FEATURE:



OTHER INFORMATION: DNA sequence of clone FS3-135.  
US-10-522-037-2

Query Match 3.5%; Score 86.2; DB 6; Length 37507;  
Best Local Similarity 42.4%; Pred. No. 5,7e-06;  
Matches 1024; Conservative 0; Mismatches 1363; Indels 30; Gaps 9;

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DB CGGAGAGGCGCGTGCAGTGTGTCTGAATCGCTCCGCGGAGGCGCATTTGGCGCGCACT 12467  
63 CAGCACTTCAAGAGGCGCGCGAGCGCATCATAGTGTCTTCAACTGCGCGCAAGAGGCGCA 122  
DB GCGCGCGCTGCGCGCGCTTCCGCTTCACTGAGCTTGGCAAGCGGACTCTAGAGAA 12527  
12468 GCGCGCGCTGCGCGCGCTTCCGCTTCACTGAGCTTGGCAAGCGGACTCTAGAGAA 12527  
DB CATGCGCGCGCACTGCG 182  
12528 CAGCGCACTGCGCGCTGCGCGCGCGCTTCCGCGCACTCTGCTACTTCCGCGCGCGCG 12587  
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183 CCACCAAGATGAGAGACTGCAACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 12588  
DB CCAAGTCTATGAGAGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 12647  
243 CCG 302  
DB CTTTCAGAGAGG-----GCGTCTCTGCGCGCGCTGCTTACCGCGCGCTTTCGCGCG 12648  
303 CCGCGAGCTGCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 362  
DB GCGCGTGTGAGAGCTTCCGCTTACATGACACTGCGCGCGCGCGCGCGCGCGCGCGCG 12702  
363 CACCGTGAATCTTCCCGCGAGATCACTCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCG 422  
DB GTTTCGCCG 12762  
423 CCGCGAGATCAAGAGAGCG 479  
DB GTTTCGCCG 12822  
480 GATTGAGCGCTGCG 539  
DB GAGT 12882  
540 GGTGTGCG 599  
DB GTTTCGCCG 12942  
600 GCTGATGCG 659  
DB GAGGCGGTGCG 13002  
660 CACCGTGAATCTTCCCGCATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 719  
DB CGGCGTGTGCG 13062  
720 GAGCG 779  
DB CATCAACCAATGACCG 13119  
780 CATCTGCGAG 839  
DB CGCGCACTGAG 13179  
840 CAACACCG 899  
DB GAGGAG 13239  
900 CTTCCGCGAG 959  
DB CTTTCAG 13296  
960 CCG 1019

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DB CTTGTGTGCG 13476  
QY CCGCGAGATCTTCAAG 1140  
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DB GAGAGACGACGACGACGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13596  
QY CAGAGACG 1260  
DB CAGGCTCTGCGCGAGATTTACCGAGACTGTGCGCGCGCGCGCGCGCGCGCGCGCG 13656  
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DB CCGCGCGGAGCG 13716  
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DB GTTTCGCCG 13956  
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QY CAAAGTGTGAG 1737  
DB CAAGCGCTGTGCG 14135  
QY CCGCATGTGAG 1797  
DB CCAACATCTGTGAGCGGTACTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 14195  
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DB GGTGAAG 14255  
QY GTTGTGTGAACCG 1917  
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QY CCGCTACTGT 2037  
DB CGAATTCGAG 14432

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QY 2097 GAAGACCGAGCTGAGAGCCATCCAGCTGACCCTGAGAGCAGCGGACGAGGTGAACAT 2156
Db 14487 GCACCGCGAGCTTGGAGCGCGCCATCGCCGAGGTCTATGGCGTGCAAGACGCCGTGGCTT 14546
QY 2157 CGTGACCGACAGCCAGTACGCCCTGGGCATATCCAGGCCCGAGCCCGACAAAGAGGAGAG 2216
Db 14547 CATCAGGGGCGACGAGAACAAAGTCTCCACCATGGCCACCTGTTGGGGCCGCGACCT 14606
QY 2217 CGAGCTGGTGAACCAAGATCATCGAGCACTGATCAAGAAAGAGAGGTGTACTGAGCTG 2276
Db 14607 CATGTCGACGACGCGGTTCTGTCACAAAGCATCTGTATGGCATTCAGCTCTCGGGCGC 14666
QY 2277 GGTGCCC--GCCCAAGAGGCGATCGCGGCAACGAGCAGATCGACAAAGCTGTGAGCAA 2333
Db 14667 CAAGGCGATGCGCTTCCCGCACAAAGACTGGCGGGCCCTGGACGAGCTGTGGCGGCA 14726
QY 2334 GGGCATCCGCAAGGTGCTGTTCTTGAACGGCATCGATGCGCGCATCGTGAATCTACCACTA 2393
Db 14727 GCGCGGCACTTCCGAGCGCGTGTGATCGTGAATGAGGGCGTCTACAGCATGGAAGGGGA 14786
QY 2394 CATGACGACCTGTACG 2410
Db 14787 CTACCCCGAGCTGCCCG 14803

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 Job time : 304.387 secs

GenCore version 5.1.6  
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OM nucleic - nucleic search, using SW model

Run on: December 30, 2005, 07:51:40 / Search time 423.667 Seconds  
(without alignments)  
10333.913 Million cell updates/sec

Title: US-09-610-313b-31

Sequence: 2463 gtgcagcgcaccatggtccga.....gggctagcaccggtgattc 2463

Scoring table: IDENTITY NUC  
Gapop 10.0, Gapext 1.0

Searched: 1303057 seqs, 888780828 residues

Total number of hits satisfying chosen parameters: 2606114

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database: Issued Patents, NA:\*

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2: /cgn2\_6/protdata/1/lna/5-COMB.seq:\*  
3: /cgn2\_6/protdata/1/lna/5A-COMB.seq:\*  
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9: /cgn2\_6/protdata/1/lna/Backfile1.seq:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2046	83.1	2306	3	US-09-475-515-82
2	2025.2	82.2	2312	3	US-09-475-515-84
3	2019.2	82.0	2300	3	US-09-475-515-83
4	1942.6	78.9	4319	3	US-09-475-515-6
5	1909	77.5	8908	3	US-09-393-795-12
6	1878.8	76.3	2305	3	US-09-475-515-80
7	1852	75.2	2299	3	US-09-475-515-81
8	1788.8	72.6	3012	3	US-09-393-795-10
9	1651.8	67.1	4307	3	US-09-552-950-2
10	1632.6	66.3	4307	3	US-09-936-572-14
11	1624.6	66.0	4337	3	US-09-936-572-13
12	1624.6	66.0	4353	3	US-09-936-572-12
13	1624.6	66.0	4642	3	US-09-936-572-12
14	1624.6	66.0	9772	3	US-09-552-950-5
15	1566	63.6	8356	3	US-09-872-733A-6
16	1530.6	62.1	4338	3	US-09-872-733A-1
17	1309.6	53.2	2577	3	US-09-952-060-1
18	1309.6	53.2	2650	3	US-09-952-060-5
19	1307	53.1	4053	3	US-09-952-060-34
20	1304.8	53.0	2577	3	US-09-952-060-3
21	1304.8	53.0	2650	3	US-09-952-060-7
22	1304.8	53.0	38519	3	US-09-952-060-28
23	1203.6	48.9	9010	3	US-09-184-418C-8
24	1203.6	48.9	9010	3	US-10-290-579A-8

25	1175.8	47.7	9913	3	US-09-827-688-11	Sequence 11, Appl
26	1172.6	47.6	8972	3	US-09-184-418C-9	Sequence 9, Appl
27	1172.6	47.6	8972	3	US-10-290-579A-9	Sequence 9, Appl
28	1165.4	47.3	8959	3	US-09-184-418C-11	Sequence 11, Appl
29	1165.4	47.3	8959	3	US-10-290-579A-11	Sequence 11, Appl
30	1163.8	47.3	2467	3	US-09-872-733A-3	Sequence 3, Appl
31	1142	46.4	8992	3	US-09-184-418C-4	Sequence 4, Appl
32	1142	46.4	8992	3	US-10-290-579A-4	Sequence 4, Appl
33	1106.8	44.9	2601	3	US-09-117-217-7	Sequence 7, Appl
34	1106.8	44.9	2601	3	US-09-117-217-9	Sequence 9, Appl
35	1106.8	44.9	2601	3	US-09-117-217-11	Sequence 11, Appl
36	1106.8	44.9	2601	3	US-09-117-217-13	Sequence 13, Appl
37	1106.8	44.9	2601	3	US-09-735-487-7	Sequence 7, Appl
38	1106.8	44.9	2601	3	US-09-735-487-9	Sequence 9, Appl
39	1106.8	44.9	2601	3	US-09-735-487-11	Sequence 11, Appl
40	1106.8	44.9	2601	3	US-09-735-487-13	Sequence 13, Appl
41	1106.8	44.9	4307	3	US-09-552-950-1	Sequence 1, Appl
42	1106.8	44.9	4307	3	US-09-552-950-1	Sequence 1, Appl
43	1106.8	44.9	9719	3	US-09-700-304-1	Sequence 1, Appl
44	1105.2	44.9	9050	3	US-09-184-418C-7	Sequence 7, Appl
45	1105.2	44.9	9050	3	US-10-290-579A-7	Sequence 7, Appl

## ALIGNMENTS

RESULT 1  
US-09-475-515-82  
Sequence 82, Application US/09475515A

Patent No. 6602705  
GENERAL INFORMATION:  
APPLICANT: BARNETT, Susan  
APPLICANT: ZUR MEGEDE, Jan  
APPLICANT: SRIVASTAVA, Indresh  
APPLICANT: LIAN, Ying  
APPLICANT: HARTOG, Karin  
APPLICANT: LIU, Hong  
APPLICANT: GREER, Catherine  
APPLICANT: SELBY, Mark  
APPLICANT: WALKER, Christopher  
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION  
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES  
FILE REFERENCE: 1621.002  
CURRENT APPLICATION NUMBER: US/09/475,515A  
CURRENT FILING DATE: 1999-12-30  
NUMBER OF SEQ ID NOS: 90  
SOFTWARE: Patentin Ver. 2.0  
SEQ ID NO 82  
LENGTH: 2306  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence:  
US-09-475-515-82

Query Match 83.1%; Score 2046; DB 3; Length 2306;  
Best local similarity 93.6%; Pred. No. 1.5e-314;  
Matches 2159; Conservative 0; Mismatches 135; Indels 12; Gaps 2;

170 GCGGCAAGAGGGCCACGATGAGACTGACACGCGCCAGGCCAATTCTTCGCG 229  
1 GCGGCGCGCAAGACCAATGAAAGATTGACTAGAGACGAGCTTAATTCTTCGCG 60  
230 AGGACCTGGGCTTCCCCGAGGCGAGCGCCGAGCTTCCCAAGACGAGAACCGCGCCA 289  
61 AGGACCTGGGCTTCTCTGCGAGGCGAGAGCCCGCAGATTGACGAGCAGACCGCGCCA 120  
290 ACAAGCCCAACCAAGCCGAGCTGACAGTGTGCGGCG-----ACAACCCCGCAGCGAGG 343  
121 ACAAGCCCAACCGCGCGAGCTGAGTGTGCGGCGCGAGAACCAAGCTGAGCGAGG 180  
344 CCGGCGCGCGAGCGCGAGGCGAGCGCGT-----AATCTCCCGCAGATCAGCTGTGGAGC 397



```
/ Sequence 84, Application US/09475515A
/ Patent No. 6602705
/ GENERAL INFORMATION:
/ APPLICANT: BARNETT, Susan
/ APPLICANT: ZUR MEGEDE, Jan
/ APPLICANT: SRIVASTAVA, Indresh
/ APPLICANT: LIAN, Yang
/ APPLICANT: LIU, Hong
/ APPLICANT: GREER, Catherine
/ APPLICANT: SELBY, Mark
/ APPLICANT: WALKER, Christopher
/ TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
/ FILE REFERENCE: 1621.002
/ CURRENT APPLICATION NUMBER: US/09/475,515A
/ NUMBER OF SEQ ID NOS: 90
/ SOFTWARE: PatentIn Ver. 2.0
/ SBQ ID NO: 84
/ LENGTH: 2312
/ TYPE: DNA
/ ORGANISM: Artificial Sequence
/ FEATURE:
/ OTHER INFORMATION: Description of Artificial Sequence:
/ OTHER INFORMATION: FS(-).protomod.Rtopt(+)
US-09-475-515-84

Query Match      82.2%; Score 2025.2; DB 3; Length 2312;
Best Local Similarity 93.3%; Pred. No. 2.3e-311;
Matches 2156; Conservative 0; Mismatches 138; Indels 18; Gaps 3;

QY 170 GCGGCAAGAGGAGGCGCACGATGAAAGACTGCACCGAGGCGCCAGCCAACTTCTTCGCG 229
DB 1 GCGGCGCGAAGAGCACCAATGAATGTCATGAGAGACAGGCTAATTTCTTCGCG 60
QY 230 AGGACTTGCTCTTCCCGAGGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 289
DB 61 AGGACTTGCTCTTCCCGAGGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 120
QY 290 AAGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 343
DB 121 AAGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 180
QY 344 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 397
DB 181 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 240
QY 398 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 457
DB 241 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 300
QY 458 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 517
DB 301 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 360
QY 518 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 577
DB 361 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 420
QY 578 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 637
DB 421 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 480
QY 638 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 697
DB 481 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 540
QY 698 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 757
DB 541 GCGGCGCGAGGCGCGAGGCGCGAGGCGCGAGTTCCCGAGGCGAGAACCCGCGCA 600
QY 758 AGAAGATCAAGGCGCTGATCCGCGATCTTCCGAGGAGATGAGAGAGGCGCAAGTACCA 817
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DB 601 AGAAGATCAAGGCGCTGATGAGATCTGACCGAGATGAGAGAGGCGCAAGTACCA 660
QY 818 AGATCGGCGCGAGAGACCCCTTACCAACACCCCGGTGTTGCCATCAAGAGAGGACAGA 877
DB 661 AGATCGGCGCGAGAGACCCCTTACCAACACCCCGGTGTTGCCATCAAGAGAGGACAGA 720
QY 878 CCAAGTGGCGGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 937
DB 721 CCAAGTGGCGGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 780
QY 938 AGTGCAGCTGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 997
DB 781 AGTGCAGCTGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 840
QY 998 TGAAGCTGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1057
DB 841 TGAAGCTGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 900
QY 1058 CTTTACCAATCCCGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1117
DB 901 CTTTACCAATCCCGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 960
QY 1118 TGCCCGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1177
DB 961 TGCCCGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1020
QY 1178 AGCCCTTCCGCGGCGGCGGAGGCGGAGGCGGAGGCGGAGGCGGAGGCGGAGGCGGAG 1231
DB 1021 AGCCCTTCCGCGGCGGCGGAGGCGGAGGCGGAGGCGGAGGCGGAGGCGGAGGCGGAG 1080
QY 1232 TGCGGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1291
DB 1081 TGCGGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1140
QY 1292 TGCGGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1351
DB 1141 TGCGGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1200
QY 1352 GATGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1411
DB 1201 GATGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1260
QY 1412 AGGAGGCTGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1471
DB 1261 AGGAGGCTGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1320
QY 1472 AGATCTACCCCGGATGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGG 1531
DB 1321 AGATCTACCCCGGATGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGG 1380
QY 1532 TGAACGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1591
DB 1381 TGAACGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1440
QY 1592 TCTTGGCGGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1651
DB 1441 TCTTGGCGGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1500
QY 1652 TCCAGAGGCGGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1711
DB 1501 TCCAGAGGCGGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1560
QY 1712 TGAAGACCGGCAAGTACCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTT 1771
DB 1561 TGAAGACCGGCAAGTACCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTT 1620
QY 1772 CCGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1831
DB 1621 CCGAGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1680
QY 1832 TCCGCGGCGGATGAGCTTCCGAGGCTGAACAGGCGACCCAGGACTTCTGG 1891
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Db	1681	TCAAAGCTGCCCATCCGAAAGGAGACCTGGAGGCGCTGGTGGATGGAGTACCTGGCAGGCGCA	1740
Oy	1692	CCTGGATTCGCCGAGTGGGAGTTTCGTGAACACCCCCCCCCCTGTGTGAAGCTGTGTGTACCAACG	1951
Db	1741	CCTGGATTCGCCGAGTGGGAGTTTCGTGAACACCCCCCCCCCTGTGTGAAGCTGTGTGTACCAACG	1800
Oy	1952	TGGAGAAAGAACCCCATCATCCGCGCCGAGACCTTCTACGTGTGAACGCGCCCGCCCAACCGCG	2011
Db	1801	TGGAGAAAGAACCCCATTCGTGGCGCCGAGACCTTCTACGTGTGAACGCGCCCGCCCAACCGCG	1866
Oy	2012	AGACCAAGATCGGCAGAGGCCCGCTACGTGACCGACCCGGGCGCCGACAGAAATCTGTAGCC	2071
Db	1861	AGACCAAGATCGGCAGAGGCCCGCTACGTGACCGACCCGGGCGCCGACAGAGTGTGAGCA	1920
Oy	2072	TGACCCGAGACCAACCAACGAAAGACCCGAGCTGACAGGCCCATCAGCTGACCCCTGACAGACA	2131
Db	1921	TGACCCGAGACCAACCAACGAAAGACCCGAGCTGACAGGCCCATCAGCTGACCCCTGACAGACA	1980
Oy	2132	GCGCGAGCGAGGTGAACATTCGTGACCGACAGCCAGTACGCCCTGTGGCTCATATCCAGGCC	2191
Db	1981	GCGCGCTGGAGGTGAACATTCGTGACCGACAGCCAGTACGCCCTGTGGCTCATATCCAGGCC	2040
Oy	2192	AGCCCGACAGAGCGAGACCGAGCTGTGTGAACCAAGTATATGAGACGCTGATCAAAGAG	2251
Db	2041	AGCCCGACAGAGCGAGACCGAGCTGTGTGAACCAAGTATATGAGACGCTGATCAAAGAG	2100
Oy	2252	AGAAAGTTCACCTGAGCTGGGGTCCCGGCCAACAGGGATGGCGGGCAACGACGAGATCG	2311
Db	2101	AGAAAGTTCACCTGAGCTGGGGTCCCGGCCAACAGGGATGGCGGGCAACGACGAGATCG	2166
Oy	2312	ACAAGCTGTGAGCAAGGGGCATTCGCAAGTGTCTTCTGTGACCGGATTCGATGTGGCGCA	2371
Db	2161	ACAAGCTGTGAGCGCCGGGCATTCGCAAGTGTCTTCTGTGACCGGATTCGATGTGGCGCA	2220
Oy	2372	TGCTGATCTTACAGTACATGTGACGACCTGTACGTGGGCAAGCGCGGCCCTTAGATTCGATT	2431
Db	2221	TGCTGATCTTACAGTACATGTGACGACCTGTACGTGGGCAAGCGCGGCCCTTAGATTCGATT	2280
Oy	2432	AAAAGCTTCCGGGGCTAGCAACCGGTGAATTC	2463
Db	2281	AAAAGCTTCCGGGGCTAGCAACCGGTGAATTC	2312

RESULT 3  
 US-09-475-515-83  
 Sequence 83, Application US/09475515A  
 Patent No. 6602705  
 GENERAL INFORMATION:  
 APPLICANT: BARNETT, Susan  
 APPLICANT: ZUR MEGEDE, Jan  
 APPLICANT: SRIVASTAVA, Indresh  
 APPLICANT: LIAN, Ying  
 APPLICANT: HARTOG, Karin  
 APPLICANT: LIU, Hong  
 APPLICANT: GREER, Catherine  
 APPLICANT: SELBY, Mark  
 APPLICANT: WALKER, Christopher  
 TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION  
 TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES  
 FILE REFERENCE: 1621.002  
 CURRENT APPLICATION NUMBER: US/09/475,515A  
 CURRENT FILING DATE: 1999-12-30  
 NUMBER OF SEQ ID NOS: 90  
 SOFTWARE: PatentIn Ver. 2.0  
 SEQ ID NO 83  
 LENGTH: 2300  
 TYPE: DNA  
 ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Description of Artificial Sequence:  
 OTHER INFORMATION: FS(-).prolmod.RTopt.YMMM  
 US-09-475-515-83

Query Match	Similarity	92.0% ; Score	No. 2.2 ; DB 3 ; Length	2300 ;
Best Local	Similarity	93.2% ; Score	No. 2.1e-310 ;	
Matches	2150 ;	Conservative	0 ; Mismatches	138 ; Indels
			18 ; Gaps	3 ;
Qy	170	GCGGCAGAGAGGCGCACCAATGAAGACTGCACCCGAGCGCCAGGCCCACTTCTTCGGCG	229	
Db	1	GCGGCGCCGAAAGGACACCAATGAATAATGTCATCTGAGAGCAGGCTTAATTTCTTCGGCG	60	
Qy	230	AGGACTGTGGCTTTCCCCAGGGCGAAGGCGCGGAGTTCCCGAGGACAGAAACCGCGCA	289	
Db	61	AGGACTGTGGCTTTCTTCAGAGGCAAGGCGCGGAGTTCAAGAGGAGAGACCGCGCA	120	
Qy	290	ACAGCCCCACCAAGCGCGAGCTGACAGTGCAGCGCG-----ACAAACCCCGCAGCAGG	343	
Db	121	ACAGCCCCACCCGCGCGAGCTGACAGTGTGTGGCGCGCGAGAAACAAGCTGAGCGAGG	180	
Qy	344	CCGGCGCCGAGAGCGCAGAGGCAACCTG-----AACTTCCCCAGATCAACCTGTGTGCAGC	397	
Db	181	CCGGCGCCGAGAGCGCGCAGAGGCAACCTGTGACTTCACTTCCCGCAGATCAACCTGTGTGCAGC	240	
Qy	398	GCCTCCCTGTGTAGCATCAAGTGTGGCGCGCAATCAAGAGAGGCCCTGTGTGACACCGCG	457	
Db	241	GCCTCCCTGTGTAGCATCAAGATTCGGCGCGCAAGCTCAAGAGAGGCCCTGTGTGACACCGCG	300	
Qy	458	CCGACGACACCGTGTGTGAGGAGATGAGCCCTGCCCGCAAGTGTGAACCCCAAGATGATCG	517	
Db	301	CCGACGACACCTGTGTGTGAGGAGATGAACTTCCCGCGCAAGTGTGAAGCCCAAGATGATCG	360	
Qy	518	GCGGCATTCGGCGCTTATCAAGGTGTGCGCAGTACGACCAAGATCTGATCGAGATCTTGG	577	
Db	361	GCGGGATTCGGGGGCTTATCAAGGTGTGCGGCGATACGACAGATCCCGTGTGAGATCTTGG	420	
Qy	578	GCAGAAAGGCATGTGGCAACGTGCTGATTCGGCCCAACCCCGTGAACATCATTCGGCGCGCA	637	
Db	421	GCACAAAGGCATGTGGCAACGTGTGTGTGGCCCAACCCCGTGAACATCATTCGGCGCGCA	480	
Qy	638	ACATGCTGACCCGACTGGGGCTGCAACCTGAACTTCCCATCAGGCCCATCGAGACCGTGC	697	
Db	481	ACCTGCTGACCCCAATTCGGCTGCAACCTTGAACCTTCCCATGACCCCATCGAGACCGTGC	540	
Qy	698	CCGTGAAGCTGAAGCCCGGCAATGAGCGGCCCAAGTGAAGCACTGGCCCTTGAACCGAGG	757	
Db	541	CCGTGAAGCTGAAGCCCGGGAGTGAACCGGCCCAAGTGAAGCACTGGCCCTTGAACCGAGG	600	
Qy	758	AGAAATCAAGGCGCTTGAACCGCATCTTGCAGAGAGATGAGAGAGAGAGGCGCAAGTCAACA	817	
Db	601	AGAAATCAAGGCGCTGTGTGAGATCTTGCACCGGAGATGAGAGAGAGAGGCGCAAGTCAACA	660	
Qy	818	AGATTCGGCCCCGAGAACCCCTTACAAACACCCCGTGTTCGCATCAAGAGAGAGAGACAGCA	877	
Db	661	AGATTCGGCCCCGAGAACCCCTTACAAACACCCCGTGTTCGCATCAAGAGAGAGAGACAGCA	720	
Qy	878	CCAAGTGCAGAACTGGTGTGACTTTCGCGAGCTGAACAAGCGCACCCAGACTTCTTGGG	937	
Db	721	CCAAGTGCAGAACTGTGTGACTTTCGCGAGCTGAACAAGCGCACCCAGACTTCTTGGG	780	
Qy	938	AGGTGCAGCTGGGATCTCCCAACCCCGCGGCTTGAAGAGAGAGAGAGCTGACCGTGC	997	
Db	781	AGGTGCAGCTGGGATCTCCCAACCCCGCGGCTTGAAGAGAGAGAGAGCTGACCGTGC	840	
Qy	998	TGAGACTGTGGGAGAGCCCTTACTTTCAGCGTTCGCCCTGTGACAGAGACTTTCGCAAGTACACG	1057	
Db	841	TGAGACTGTGGGAGAGCCCTTACTTTCAGCGTTCGCCCTGTGACAGAGACTTTCGCAAGTACACG	900	
Qy	1058	CCTTACCATCCCGAGCATCAACAAGAGAACCCCGGAGATCGCTACCAAGTACAGTGC	1117	
Db	901	CCTTACCATCCCGAGCATCAACAAGAGAACCCCGGAGATCGCTTACCAAGTACAGTGC	960	
Qy	1118	TGCCCCAGGGCTGTGAAGGGCGAGCCCGAGCATCTTTCAGAGCAGCATGACCAAGATCTTGG	1177	
Db	961	TGCCCCAGGGCTGTGAAGGGCGAGCCCGAGCATCTTTCAGAGCAGCATGACCAAGATCTTGG	1028	
Qy	1178	AGCCCTTCGCGCGCGCAACCCCGAGATCGTGAATCTACAGGCCCCCTGTGATGTGGCA	1237	

Db	1021	AGCCCTTCGGAGACGAAGAACCCCGACATCGTGATCTACAGGCCCCCTGTATGTTGGGCA	1080
Qy	1238	GCACCTTGAGATTCGCGCAGACCCGCGCAAGATCGAGAGCTGCGAGCACCTGCTGC	1297
Db	1081	GGCAGCTGGAGATTCGGCGACGACCGCACAAAGATCGAGAGCTGCGCGCACACTGCTGC	1140
Qy	1298	GCTTGGGGCTTACCAACCCCCCGACAAAGAGCACAAAGAGAGCCCCCTTCTGTGATGCG	1357
Db	1141	GCTTGGGGCTTACCAACCCCCCGACAAAGAGCACAAAGAGAGCCCCCTTCTGTGATGCG	1198
Qy	1358	GCTACGAGCTGCAACCCCGACAAATGAGAACCGTGAGGCCCATCGAGTCCCGGAGAGGAGA	1417
Db	1199	----CGAGCTGCACCCCGACAAATGAGAACCGTGAGGCCCATCGAGTCCCGGAGAGGAGA	1254
Qy	1418	GCTTGACCGGTGAMCGACATCCAGAGAGCTGTGGCGAAGCTGAACTYGGCGACGCAAGATCT	1477
Db	1255	GCTTGACCGGTGAMCGACATCCAGAGAGCTGTGGCGAAGCTGAACTYGGCGCGCAGATCT	1314
Qy	1478	ACCCCGGCGATCAAGTGTGCGCGCACTGTGCAAGCTGTGCGCGCGCGCAAGGCCCTTGACCG	1537
Db	1315	ACGCGGCGATCAAGTGTGAGCAGCTGTGCAAGCTGTGCGCGCGCGCAAGGCCCTTGACCG	1374
Qy	1538	ACATCTGTGCCCCCTGACCGAGAGAGCCGAGCTGTGAGCTGTGCGCGGAGAACCGGAGATCTGTGC	1597
Db	1375	AGGTGATCTCCCTCTGACCGAGAGAGCCGAGCTGTGAGCTGTGCGGAGAACCGGAGATCTGTGA	1434
Qy	1598	GCGAGCCCGGTGCAAGGCGGTGTACTACGACCCCGACAAAGAGCTGTGTGGCGAGATCTCAGA	1657
Db	1435	AGGAGCCCGGTGCAAGGAGTGTATCTACGACCCCGACAGAGAGCTGTGTGGCGAGATCTCAGA	1494
Qy	1658	AGCAGGGCGCAAGACCATGTGACCTTACAGATCTTACAGAGCCCTTCAGAACCTGTAAGA	1717
Db	1495	AGCAGGGCGCAAGGCGCATGTGACCTTACAGATCTTACAGAGCCCTTCAGAACCTGTAAGA	1554
Qy	1718	CCGGCAGTATCGCCAAAGATGCGGCACCGCGCCACACCAAGACGTGAAGAGCTTGACCGAGG	1777
Db	1555	CCGGCAGTATCGCGGCATGTGCGCGCGCGCCACACCAAGAGTGAAGAGCTTGACCGAGG	1614
Qy	1778	CCGTGCAAGATGCGGCATGTGAGAGCATCGATCTGTGGGGGAGAGACCCCGAAGTTCCGCC	1837
Db	1615	CCGTGCAAGAGGTGAGCACCGAGAGCATCGATCTGTGGGGGAGAGATCCCGCAAGTTCAAGC	1674
Qy	1838	TGCCCATTCAGAAAGAGAGCATTTGGAGACCTTGGTGAACCACTACTGTGAGGCGCACCTTGA	1897
Db	1675	TGCCCATTCAGAAAGAGAGCATTTGGAGAGGCGCTGGTGAATGGAAGTATGTGAGGCGCACCTTGA	1734
Qy	1898	TCCCCGAGTGGAGATTCTGTGAACACCCCCCTGTGTGAAGCTGTGTGTAACAGGCTTGAGA	1957
Db	1735	TCCCCGAGTGGAGATTCTGTGAACACCCCCCTGTGTGAAGCTGTGTGTAACAGGCTTGAGA	1794
Qy	1958	AGAGAGCCCATCATCGGCGCGCGAGACCTTCTATCTGTGAAGGGGCGCGCGCAACCGCGAGACA	2017
Db	1795	AGAGAGCCCATCATCGTGGCGCGCGAGACCTTCTATCTGTGAAGGGGCGCGCGCAACCGCGAGACA	1854
Qy	2018	AGATGCGGCAAGGCGCGCTACGTGACCGACCGGGGCGCGCGAGAGATCTGTGAGCTTGACCG	2077
Db	1855	AGCTGGGCAAGGCGCGCTACGTGACCGACCGGGGCGCGCGAGAGTGTGTGAGCATCTGGCG	1914
Qy	2078	AGACCAACCAACCAAGAGACCGAGCTGCAAGGCCATCTCACTGTGCGCCCTTGACAGACAGCGGCA	2137
Db	1915	ACACCAACCAACCAAGAGACCGAGCTGCAAGGCCATCTCACTGTGCGCCCTTGACAGAGCAGCGGC	1974
Qy	2138	GCGAGGTGAACATCTGTGACCGACCAACCGATAGCCCTGGGGCATATTCAGAGGCGAGCGCG	2197
Db	1975	TGAGAGTGAACATCTGTGACCGACCAACCGATAGCCCTTGGGACATATTCAGAGGCGAGCGCG	2034
Qy	2198	ACAAGAGCGAGCGAGCTGTGTGAACAGATCATCGAGCAGCTGTATCAAGAGAGGAAG	2257
Db	2035	ACAAGAGCGAGCGAGCTGTGTGAAGCAATATGAGAGGCTGTATCAAGAGAGGAAG	2099
Qy	2258	TGTACTGTGAGCTGGGTGCCCGCCACAGAGGCAATGGGGGCAACGAGCAGATTCAGACGC	2311

Db	2095	TGTACTCGGCTGGGTGCCCGCCCAAGAGGCATTCGGCGCAACGACGAGTGGACAAGC	2154
Qy	2318	TGTGTAGCAAGGGCATTCGGCAAGTGCTGTTCTCTGGACGGCATGTGAATGGCGGCA	2377
Db	2155	TGGTAGACGGCGGCGATCCGCAAGGTGCTGTTCTCTGAAACGGGATGTGAATGGCGGCA	2214
Qy	2378	TTCTACCAAGTACATGGACGACCCTGTACGCTGGGCAACGGCGGCGCTTAAGATCGATT	2437
Db	2215	TTCTACCAAGTACATGGACGACTGTACGCTGGGCAACGGCGGCGCTTAAGATCGATT	2274
Qy	2438	TTCCCGGGGCTAAGCACCGGTGAATTTC	2463
Db	2275	TTCCCGGGGCTAAGCACCGGTGAATTTC	2300

RESULT 4  
US-09-475-515-6  
; Sequence 6, Application US/09475515A

```

GENERAL INFORMATION:
APPLICANT: BARNETT, Susan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LIAN, Ying
APPLICANT: HARTOG, Karin
APPLICANT: LIU, Hong
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 6
LENGTH: 4319
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURES:
OTHER INFORMATION: Description of Artificial Sequence: synthetic
OTHER INFORMATION: HIV-Gag-polymerase
US-09-475-515-6

```

Query Match	78.9%	Score 1942.6;	DB 3;	Length 4319;
Best Local Similarity	89.7%	Pred. NO. 2.7e-298;		
Matches 2129;	Conservative	0;	Mismatches 225;	Indels 19; Gaps 4;

QY	33	GGCCACAGGCCCAACATCTCGATGATCAGGCGGAGCACTTCAAGGGGCCCAAGCGCATCAT	92
Db	1122	GACGGAACCCGGCGGACCATCATATGATGTCAGCGGGCACTTCCGCAACAGCGGAAGACCTT	1181
QY	93	CAAGTCTTCAACTGCGCGCAAGAGGGCCACATCGCCCGCAACTGCGCGCCCCCGGCA	152
Db	1182	CAAGTCTTCAACTGCGCGCAAGAGGGCCACATCGCCCGCAACTGCGCGCCCCCGGCA	1241
QY	153	GAAAGGCTGCTGGAAGTGGCGGCAAGAGGGCCACAGATGAAGACTGCAACGAGCGCA	212
Db	1242	GAAAGGCTGCTGGAAGTGGCGGCGCGCGGGAAGGACACCAATATGAAGATTGCACTGAGAGCA	1301
QY	213	GGCCAACTTCTTCCCGGAGGACCTTGCGCTTCCGCCGAGGCGCAAGCGCCGCGAGTCCCGAG	272
Db	1302	GGCTAA-TTTTTTTAGGGAAGATCTGGCTTCTTCAAGGGAAGGCGAGGAAATTTTCTTC	1360
QY	273	CGAGCAAGAACCGCGCCCAACAGTCCCAACAGCGCGAGTGCAGATGCGCGCG-----A	326
Db	1361	AGAGGAGAGCCAGAGGCCAACAGCGCCACCAAGAAAGATGCTTCAAGTTTGGGAGGAGAAAA	1422
QY	327	CAACCCCGGACGAGCGCGCGCGCGCGCGCGAGCGCGCAGGCA-----CCCTGAATCTTCCCA	380
Db	1421	CAACTCCCTCTCAGGAAGCGAGGCGGATGAGCAAGGAATCTGATCTTTAATTCTCCCA	1480



QY 381 GATCACCCTGTGGGAGGCGCCCTGTGTGATCATAGGTGGCGGCGCATCAAGAGGC 440  
 Db 1481 GATCACCCTGTGGGAGGCGCCCTGTGTGATCATAGGTGGCGGCGCATCAAGAGGC 1540  
 QY 441 CTTGCTGAGACACCGCGCGGAGACACCGGTGTGAGAGATGAGCCCGCGGAGATG 500  
 Db 1541 GCTGCTGACACCGCGCGGAGACACCGGTGTGAGAGATGAGCCCGCGGAGATG 1600  
 QY 501 GAAAGCCCAAGATGATCGGCGGATCGGCGGCTTCAAGGTGGCGCCAGTACGACAGAT 560  
 Db 1601 GAAAGCCCAAGATGATCGGCGGATCGGCGGCTTCAAGGTGGCGCCAGTACGACAGAT 1660  
 QY 561 CTTGATGAGATCTGCGGAGAGAGGCGATGCGACCGGTGTATCGGCGCCGACCCCGT 620  
 Db 1661 CCGCGTGAAGATCTGCGGAGAGAGGCGATGCGACCGGTGTATCGGCGCCGACCCCGT 1720  
 QY 621 GAAATCATCGGCGGAGACATGCTGACCGAGTGGGCTGACCGCTGAACCTTCCCATGAG 680  
 Db 1721 GAAATCATCGGCGGAGACATGCTGACCGAGTGGGCTGACCGCTGAACCTTCCCATGAG 1780  
 QY 681 CCCCATCGAGACCGGTGCGCGTGAAGCTGAAGCCCGGATGAGACGGCCCAAGTGAAGCA 740  
 Db 1781 CCCCATCGAGACCGGTGCGCGTGAAGCTGAAGCCCGGATGAGACGGCCCAAGTGAAGCA 1840  
 QY 741 GTGGCCCTGACCGAGAGAGATCAAGGCCCTGATCGGCAATCTGCGAGAGATGAGAA 800  
 Db 1841 GTGGCCCTGACCGAGAGAGATCAAGGCCCTGATCGGCAATCTGCGAGAGATGAGAA 1900  
 QY 801 GGAGGGGCAAGATCAAGAGATCGGCGCGGAGACCCCTCAACACCCCGGTTCGCGAT 860  
 Db 1901 GGAGGGGCAAGATCAAGAGATCGGCGCGGAGACCCCTCAACACCCCGGTTCGCGAT 1960  
 QY 861 CAAGAGAGAGAGACAGCAACAGTGGCGAGCTGTGATCTTCCGAGCTGAACAAGCG 920  
 Db 1961 CAAGAGAGAGAGACAGCAACAGTGGCGAGCTGTGATCTTCCGAGCTGAACAAGCG 2020  
 QY 921 CACCCAGGACTTCTGGAGGTGAGCTGGGATCCCCACCCCGCGCTGAAGAGAA 2080  
 Db 2021 CACCCAGGACTTCTGGAGGTGAGCTGGGATCCCCACCCCGCGCTGAAGAGAA 2140  
 QY 981 GAAAGCGTGAACCGGTGTGAGACGTGGGAGACGCTTCAAGCGCGCGCTGTGAGAGAA 1040  
 Db 2081 GAAAGCGTGAACCGGTGTGAGACGTGGGAGACGCTTCAAGCGCGCGCTGTGAGAGAA 2100  
 QY 1041 CTTCCGCAAGTACACCGGCTTCAACCATCCGAGCATCAACAAGAGACCCCGGATCG 1100  
 Db 2141 CTTCCGCAAGTACACCGGCTTCAACCATCCGAGCATCAACAAGAGACCCCGGATCG 2200  
 QY 1101 CTACCAAGTACACCGTGTGCGCGGAGGCTGAGAGGAGAGCCCGAGCATCTTCCAGAGCAG 1160  
 Db 2201 CTACCAAGTACACCGTGTGCGCGGAGGCTGAGAGGAGAGCCCGGATCTTCCAGAGCAG 2260  
 QY 1161 CATGACCAAGATCTGTGAGGCGCTTCCGCGCGGAGACCCCGAGATCGGATCTCAAGTA 1217  
 Db 2261 CATGACCAAGATCTGTGAGGCGCTTCCGCGCGGAGACCCCGAGATCGGATCTCAAGTA 2320  
 QY 1218 ---GGCGCGCTGTGAGGCGAGACCTGAGATCGGCGAGACCCCGCAAGATGGA 1274  
 Db 2321 CATGACCAAGTGTGAGGCGAGACCTGAGATCGGCGAGACCCCGCAAGATGGA 2380  
 QY 1275 GAGAGTGGGAGACCTGTGCGGTGGGCTTCAACACCCCGAGAGAGAGACAGAA 1334  
 Db 2381 GAGAGTGGGAGACCTGTGCGGTGGGCTTCAACACCCCGAGAGAGAGACAGAA 2440  
 QY 1335 GAGAGCCCGCTTCTGTGAGATGGGCTACAGAGCTGACCCCGAGAGATGAGCCGTCAGACC 1394  
 Db 2441 GAGAGCCCGCTTCTGTGAGATGGGCTACAGAGCTGACCCCGAGAGATGAGCCGTCAGACC 2500  
 QY 1395 CATGAGCTGCGCGGAGAGAGAGCTGAGCCGTGAACAGATCCAGAGCTGTGGGAGAA 1454  
 Db 2501 CATGAGCTGCGCGGAGAGAGAGCTGAGCCGTGAACAGATCCAGAGCTGTGGGAGAA 2560  
 QY 1455 GCTGAACCTGGGCGAGACAGATCTACCCCGGATCAAGGTGGCGAGCTGTGCAAGCTGCT 1514

Db 2561 GCTGAACCTGGGCGAGACAGATCTACCCCGGATCAAGGTGGCGAGCTGTGCAAGCTGCT 2620  
 QY 1515 GCGCGCGGAGAGAGGCGCTGACCGACATCTGTGCGCCCTGAGACGAGAGAGCGGAGTGA 1574  
 Db 2621 GCGCGCGGAGAGAGGCGCTGACCGAGGTGATCTCCCTTGAACGAGAGGCGGAGCTGAG 2680  
 QY 1575 GCGCGAGAACCGGAGATCTCTGCGGAGACCGGCTGACCGGCTGTACTACGACCCAGCAA 1634  
 Db 2681 GCGCGAGAACCGGAGATCTCTGAGAGAGCCGCTGACGAGAGGTGTACTACGACCCAGCAA 2740  
 QY 1635 GAGACTGTGGCGGAGATCTCAAGAGAGGCGCAAGACAGTGGACCTTACAGATCTACCA 1694  
 Db 2741 GAGACTGTGGCGGAGATCTCAAGAGAGGCGCAAGTGGACCTTACAGATCTACCA 2800  
 QY 1695 GAGAGCCCTTCAAGAACCTTGAAGACCGGCAAGTACGCCAAGTGGGACCGGCCACACCAA 1754  
 Db 2801 GAGAGCCCTTCAAGAACCTTGAAGACCGGCAAGTACGCCAAGTGGGACCGGCCACACCAA 2860  
 QY 1755 GAGCTGAAGAGCTGACCGAGGCGGTGACAGAGATCGCCATGAGAGATCTGTATCTG 1814  
 Db 2861 GAGCTGAAGAGCTGACCGAGGCGGTGACAGAGATCGCCATGAGAGATCTGTATCTG 2920  
 QY 1815 GGGCAAGACCCCAAGTTCCGCGCTGCGCATCTCAAGAGAGACCTGGAGACCTGTGTAC 1874  
 Db 2921 GGGCAAGATCCCAAGTTCAAGCTGCGCATCTCAAGAGAGACCTGGAGAGCTGTGTAT 2980  
 QY 1875 GAGCTAGGAGGACCACTGATCCCGAGTGGAGTCTGTGAACACCCCGCTGTGT 1934  
 Db 2981 GAGCTAGGAGGACCACTGATCCCGAGTGGAGTCTGTGAACACCCCGCTGTGT 3040  
 QY 1935 GAACTGTGTGACCACTGAGAGAGAGCCCATCATGTGGCGGAGACCTTCTACGTGGA 1994  
 Db 3041 GAACTGTGTGACCACTGAGAGAGAGCCCATGTGTGGCGGAGACCTTCTACGTGGA 3100  
 QY 1995 CCGGCGCGGAGACCGGAGACCAAGATCGGCAAGGCGGCTACGAGACCGGCGGCGG 2054  
 Db 3101 CCGGCGCGGAGACCGGAGACCAAGTGGGCAAGGCGGCTACGAGACCGGCGGCGG 3160  
 QY 2055 GCAAGAGTGTGAGCTGACCGAGACCAACCAAGAGACCGAGCTGACAGGCGATCCA 2114  
 Db 3161 GCAAGAGTGTGAGCTGACCGGAGACCAACCAAGAGACCGAGCTGACAGGCGATCCA 3220  
 QY 2115 GCTGCGCTGTGAGAGACCGGAGAGGTGAGATCATGTGTAACGACCGATGACGCTT 2174  
 Db 3221 CTTGCGCTGTGAGAGACCGGAGAGGTGAGATCATGTGTAACGACCGATGACGCTT 3280  
 QY 2175 GGGCATCATCGAGGCGGACCGGAGAGAGGAGAGAGGAGGAGGAGGAGGAGGAGGAG 2234  
 Db 3281 GGGCATCATCGAGGCGGACCGGAGAGAGGAGAGGAGGAGGAGGAGGAGGAGGAGGAG 3340  
 QY 2235 GCACTGATCAAGAGAGAGAGGTGTACTGAGCTGGGTGCGGCCCAAGAGGAGATCGG 2294  
 Db 3341 GCACTGATCAAGAGAGAGAGGTGTACTGAGCTGGGTGCGGCCCAAGAGGAGATCGG 3400  
 QY 2295 CCGGCAAGAGAGATCGACCAAGCTGTGAGAGAGGAGATCGGCAAGGTGTCTTGA 2354  
 Db 3401 CCGGCAAGAGAGATCGACCAAGCTGTGAGAGAGGAGATCGGCAAGGTGTCTTGA 3460  
 QY 2355 CCGCATGATGAGGCGGATCTGTATCTACAGTA 2387  
 Db 3461 CCGCATGATGAGGCGGATCTGTATCTACAGTA 3493

RESULT 5  
 US-09-393-795-12  
 ; Sequence 12, Application US/09393795  
 ; Patent No. 6958226  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Gray, John T.  
 ; APPLICANT: Mulligan, Richard C.  
 ; TITLE OF INVENTION: Packaging Cell Lines  
 ; FILE REFERENCE: CMCC693p2A

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; CURRENT APPLICATION NUMBER: US/09/393,795
; CURRENT FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: US 60/100,063
; PRIOR FILING DATE: 1998-09-12
; PRIOR APPLICATION NUMBER: US 60/100,022
; PRIOR FILING DATE: 1998-09-11
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 12
; LENGTH: 8908
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Packaging construct pHdMhgm2 comprising a codon
; US-09-393-795-12

Query Match      77.5%; Score 1909; DB 3; Length 8908;
Best Local Similarity 88.9%; Pred. No. 5.7e-293;
Matches 2109; Conservative 0; Mismatches 243; Indels 19; Gaps 4;

QY      35  CCACGAGGCGCAACCTCTGATGACGCGAGCACTTCAAGGAGCCCAAGCGCATCATCA 94
Db      2429  CCACCGCGCGCACATCATGATTCAGAGGGCACTTCCGCAACGCGCAAGACCTGTA 2488
QY      95  AGTGCTTCAACTGCGGCAAGAGGGCCATCGCCCGCACTGCGCGCCCGCGCAAGA 154
Db      2489  AGTGCTTCAACTGCGGCAAGAGGGCCATCGCCCGCAAGACTGCGCGCCCGCGCAAGA 2548
QY      155  AGGGCTGCTGGAAGTCCGCGAAGAGAGGGCCACCATGTAAGAGTGCACCGAGCCGAG 214
Db      2549  AGGGCTGCTGGAAGTCCGCGAAGAGAGGGCCACCATGTAAGAGTGTACTTGAGAGCAAG 2608
QY      215  CCAACTCTCTTCGCGGAGGACCTGAGCTTCCCCCAAGGCGCAAGGCCGAGTTCCCGAG 274
Db      2609  CTAA-TTTTAAAGGAAGATCTGGCTTCCCAAGAGGAAGCCAGGGAATTTCTTCAG 2667
QY      275  AGCAGAACCGCGCCCAACAGCCCGACAGCGCGAGCTGACGAGTGCAGG-----GAGA 328
Db      2668  AGCAGAACGAGGCCAACAGCCCGACAGGAAGAGGTTTTCAGGTTTGGGAAGAGACACA 2727
QY      329  ACCCGCGAGCGAGCGCGCGCGCGAGCGCCAGGCA-----CCTGAACTTCCCGACA 382
Db      2728  ACTCCCTCTCAGAAAGAGAGAGCGGATGACAAAGAACTGTATCTTTAGCTTCCCTCAGA 2787
QY      383  TCACCTTGTGGAGCGCCCGCTGTGTGAGATCAAGGTGGCGGCGCGAGTCAAGAGAGCC 442
Db      2788  TCACCTTTTGGAGCGAGCCCTGTGTCAATTAAGATCGTGGCGAGCTGAGAGAGGCC 2847
QY      443  TGTGTGACACCGGCGCGAGACACCGTGTGTGAGAGATGAGCTTGCCTGCGCGAGTGA 502
Db      2848  TGTGTGACACCGGCGCGAGACACCGTGTGTGAGAGATGAGCTTGCCTGCGCGAGTGA 2907
QY      503  AGCCCAAGATGATCGGCGGATCGGCGGCTTCAATCAAGGTGCCCAAGTACAGCAATCC 562
Db      2908  AGCCCAAGATGATCGGCGGATCGGCGGCTTCAATCAAGGTGCCCAAGTACAGCAATCC 2967
QY      563  TGTATGAGATCTGCGGCAAGAGAGCCATCGGCAACCGGTGATCGGCGCCCAACCCGCTGA 622
Db      2968  TGTATGAGATCTGCGGCAAGAGAGCCATCGGCAACCGGTGATCGGCGCCCAACCCGCTGA 3027
QY      623  ACATCATCGGCGCGCAACATGCTGACCCAGCTGGGCTGCAACCTGAACTTCCCATCAGCC 682
Db      3028  ACATCATCGGCGCGCAACATGCTGACCCAGTGGGCTGCAACCTGAACTTCCCATCAGCC 3087
QY      683  CCATCGAGACCTGCGCGCTGAAAGCTGAAGCCCGGCATGACCGGCCCAAGTGAAGTGA 742
Db      3088  CCATCGAGACCTGCGCGCTGAAAGCTGAAGCCCGGCATGACCGGCCCAAGTGAAGTGA 3147
QY      743  GGGCCCTGACCGAGAGAAAGATCAAGGCGCTGACCGGCATCTGCGAGAGATGAGAGAG 802
Db      3148  GGGCCCTGACCGAGAGAAAGATCAAGGCGCTGAGTGAAGTCTGACCGAGATGAGAGAG 3207

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QY      803  AGGGCAAGATCACCAAGATCGGCGCGCGAGAAACCCCTACAAACACCCCGTGTTCGCATCA 862
Db      3208  AGGGCAAGATTCACCAAGATCGGCGCGCGAGAAACCCCTACAAACACCCCGTGTTCGCATCA 3267
QY      863  AGAAGAGAGAGACACCAAGTGGCGCAAGCTGTGTGACTTCCGCGAGCTTGAACAGCGCA 922
Db      3268  AGAAGAGAGATCCACCAAGTGGCGCAAGCTGTGTGACTTCCGCGAGCTTGAACAGCGCA 3327
QY      923  CCCAGACTTCTTGGAGGTGACAGTGGGCAATCCCCACCCCGCGCGCTGAAGAGAGAGA 982
Db      3328  CCCAGACTTCTTGGAGGTGACAGTGGGCAATCCCCACCCCGCGCGCTGAAGAGAGAGA 3387
QY      983  AGAGGTGACCGGTGTGAGACGTGGGCAAGGCTTCACTTGAAGCTGTGCGCTGACGAGACT 1042
Db      3388  AGTCCGTACCGGTGTGAGACGTGGGCAAGGCTTCACTTGTCCGTGTGCGCTGACGAGACT 3447
QY      1043  TCCGCAAGTACACCGCTTTCACATCCCAAGATCAACAGAGACCCCGGCATCCGCT 1102
Db      3448  TCCGCAAGTACACCGCTTTCACATCCCAAGATCAACAGAGACCCCGGCATCCGCT 3507
QY      1103  ACCAGTACAGTGTCTCCCGCAAGGCTGGAAGGCGCCCGAGCATCTTCCAGAGACAGA 1162
Db      3508  ACCAGTACAGTGTCTCCCGCAAGGCTGGAAGGCGCTCCCGCATCTTCCAGTGTCCA 3567
QY      1163  TGAACGAATCTGTGAGGCTTCCGCGCGCGCAACCCGAGATGTGATCTACCA----- 1217
Db      3568  TGAACGAATCTGTGAGGCTTCCGCGCGCGCAACCCGAGATGTGATCTACAGTACA 3627
QY      1218  -GGCCCCCTGTACGTGGGCAAGCGACCTGAGATGCGCGCAACCGCGCAAGATGAGAG 1276
Db      3628  TGGAGACCTGTACGTGGGCTCGACCTGAGATGCGCGCAACCGCGCAAGATGAGAG 3687
QY      1277  AGCTGGCAGAGCACTGTGTGCGCTGGGCTTTCACCAACCCCGCAAGAGACCCAGAG 1336
Db      3688  AGCTGGCAGAGCACTGTGTGCGCTGGGCTTTCACCAACCCCGCAAGAGACCCAGAG 3747
QY      1337  AGCCCCCTCTCTGTGATGGGCTACAGCTGCAACCCGCAAGATGAGACCGTGCACCGCA 1396
Db      3748  AGCCCCCTCTCTGTGATGGGCTACAGCTGCAACCCGCAAGATGAGACCGTGCACCGCA 3807
QY      1397  TCGAGCTGCGCGAGAGAGAGCTGGAACCTGTGAACGACATTCAGAGCTGTGGGCAAGC 1456
Db      3808  TGTGTGCTGCGCGAGAGAGCTCTGTGAACGATTCAGAGCTGTGTGGGCAAGC 3867
QY      1457  TGAATGGGCGCAGCGAGATCTACCCCGCATCAAGTGTGGCGCAGCTGTGCAAGCTGTGC 1516
Db      3868  TGAATGGGCGCTCCCGAGATCTACCGCGCATCAAGTGTGGCGCAGCTGTGCAAGCTGTGC 3927
QY      1517  GCGGCGCCAAAGCTCTGACCGACATGTGTGCGCGAGAGCGCGAGTGTGAAGCTGG 1576
Db      3928  GCGGCGCCAAAGCTCTGACCGAGTGTGCGCGTGAACGAGAGCGCGAGTGTGAAGCTGG 3987
QY      1577  CCGAGAACCGCGAGATCTGTGCGAGACCGGTGACCGGCGTGTACTACAGACCCGAGCAAG 1636
Db      3988  CCGAGAACCGCGAGATCTGTGAGAGACCGGTGACCGGCGTGTACTACAGACCCGAGCAAG 4047
QY      1637  ACCGTGTGCGCGAGATCTGAGAGACAGAGGCGCAACAGTGTGAACCTTACCTACAGG 1696
Db      4048  ACCGTGTGCGCGAGATCTGAGAGACAGAGGCGCAACAGTGTGAACCTTACCTACAGG 4107
QY      1697  AGCCCTTCAAGAACCTGAGAACCGGCAAGTGTGCGCAACCGGCCACACCAACG 1756
Db      4108  AGCCCTTCAAGAACCTGAGAACCGGCAAGTGTGCGCAACCGGCCACACCAACG 4167
QY      1757  AGGTGAAGCAGCTGACCGAGGCGGTGACAGAGATTCGCAATGAGAGATCTGTATCTGGG 1816
Db      4168  AGGTGAAGCAGCTGACCGAGGCGGTGACAGAGATTCGCAACCGAGTCAATGTATCTGGG 4227
QY      1817  GCAAGACCCCGCAAGTTCCGCTGCGCATTCAGAGAGAGACCTGTGGAGACCTGTGTGACCG 1876
Db      4228  GCAAGACTCCCAAGTTCAAGTGTCCCATTCAGAGAGAGACCTGTGGAGGCTGTGTGACCG 4287
QY      1877  ACTACTGGACGAGGCACTGTATCCCGAGATGTGAAGTTTCGTGAACACCCCGCTGTGTGA 1936

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Db 4288 AGTCTGCGACGCGCACTGGAATCCCGAGTGAGTGTGTGAACCCCCCTGGTGA 4347
Qy 1337 AGCTGTGTACAGCTGGAGAGAGCCCATCATGTGGGCGGAGACCTTTCAAGTGAAG 1996
Db 4348 AGCTGTGTACAGCTGGAGAGAGCCCATCATGTGGGCGGAGACCTTTCAAGTGAAG 4407
Qy 1997 GCGCGCCCAACCGCGAGACCAAGATCGGCAAGGCGGCTACGTGACCGACCGGAGCGGCG 2056
Db 4408 GCGCGCCCAACCGCGAGACCAAGATCGGCAAGGCGGCTACGTGACCGACCGGAGCGGCG 4467
Qy 2057 AGAAGATGTGAGCTTGACCGAGACCAACCAAGAGACCGAGCTGAGAGCCATCCAGC 2116
Db 4468 AGAAGATGTGAGCTTGACCGAGACCAACCAAGAGACCGAGCTGAGAGCCATCCAGC 4527
Qy 2117 TGCGCTTGACAGACGCGGAGCGGAGTGAACATGTGACCGACCGGAGTACGCGCTGAG 2176
Db 4528 TGCGCTTGACAGACCTCCGAGCTGAGAGTGAACATGTGACCGACCTCCAGTATGATTTG 4587
Qy 2177 GCATCATTCAGGCGCCGAGCCGACCAAGAGCGAGCGAGCTGTGACCAAGATCATTCAGC 2236
Db 4588 GCATCATTCAGGCGCCGAGCCGAGCCGACCAAGATCATTCAGCTGTGTGCCAGATCATTCAGC 4647
Qy 2237 AGCTGATCAAGAGAGAGAGTGTACTGTAGCTGGGTGCCGCCACCAAGGCGCATCCGCG 2236
Db 4648 AGCTGATCAAGAGAGAGAGTGTACTGTAGCTGGGTGCCGCCACCAAGGCGCATCCGCG 4707
Qy 2297 GCAACGAGCAGATGAGACAGGCTGTGAGCAGGCGCATCCGAGAGTGTGTTCTCGAGCG 2356
Db 4708 GCAACGAGCAGATGAGACAGGCTGTGAGTGTGCGCGGATCCGAGAGTGTGTTCTCGAGCG 4767
Qy 2357 GCATGATGCGGCGCATCGTGTATCTACAGTA 2387
Db 4768 GCATGACCAAGGCCGAGAGAGACGACGAGAA 4798

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RESULT 6
US-09-475-515-80
; Sequence 80, Application US/09475515A
; Patent No. 6602705
; GENERAL INFORMATION:
; APPLICANT: BARNETT, Susan
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: SRIVASTAVA, Indresh
; APPLICANT: LIAN, Yang
; APPLICANT: HARROG, Karin
; APPLICANT: LIU, Hong
; APPLICANT: GREER, Catherine
; APPLICANT: SELBY, Mark
; APPLICANT: WALKER, Christopher
; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
; TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
; FILE REFERENCE: 1621.002
; CURRENT APPLICATION NUMBER: US/09/475,515A
; NUMBER OF FILING DATE: 1999-12-30
; NUMBER OF SEQ ID NOS: 90
; SOFTWARE: Patent Ver. 2.0
; SEQ ID NO 80
; LENGTH: 2305
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: FS(+).protnact.RTopt.YM
; US-09-475-515-80

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Query Match 76.3%; Score 1878.8; DB 3; Length 2305;
Best Local Similarity 89.4%; Pred. No. 3.1e-288;
Matches 2061; Conservative 0; Mismatches 232; Indels 13; Gaps 3;

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Qy 170 GCGGCAAGAGAGGCGCACCAATGAAGACTGACCGAGCGCCAGGCACTTTCTTCCGCG 229
Db 1 GCGGCGCGGAGGACCAACCAATGAAGATTCACCTGAGAGACAGGCTAATTTT -AGGG 59

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Qy 230 AGAAGCTGAGCTTCCCGAGGCGCAAGGCGCGAGTTCGCCAGGAGAGAACCGCGCA 289
Db 60 AAGATCTGGCTTCTCAAGAGAGAGCGAGGATTTTCTTCAGAGAGACGAGAGCA 119
Qy 290 ACAGCCCGACCGCGAGGCTGCAAGTGTGCGGCG-----ACAGCCCGCGAGCGAG 343
Db 120 ACAGCCCGACCGAGAGAGAGCTTCAGGTTTGGGAGAGAGAGAGAGAGAGAGAG 179
Qy 344 CCGGCGCGAGGCGCGAGGAGCA-----CCCTGAATCTCCCGAGATCACTGTGGAGC 397
Db 180 CAGAGCGGATAGACAGAGAGAGCTGTATCTTTAATCTTCTCAATCACTTTTGGCAAC 239
Qy 398 GCCCTGTGTAGCATCAAGGTGAGCGGCGCAGATCAAGAGAGCCCTGTGACACCGCG 457
Db 240 GACCCCTGTGTCAGATTAAGAGATCGGGGGGAGAACTCAAGAGAGCCCTGTGATACAGAG 299
Qy 458 CGAGAGACACCGTCTGAGAGAGATGAGCTGTGCCGCAAGTGAAGCCCAAGTATGATCG 517
Db 300 CAGATGATACAGTATTAGAGAGAGATTAATTTGCGAGAGAGAGAGAGAGAGAGAG 359
Qy 518 GCGGCAATCGGCGCTTATCATCAAGGTGCGCGCGAGTACGACAGATCTGTATCGAGATTCGCG 577
Db 360 GGGGAGATCGGGGCTTATCATCAAGGTGAGGCGAGTACGACAGATACCTGTAGAGATCTGTG 419
Qy 578 GCAAGAGGCGCATCGGACACCGTGTATCGGCGCCGAGCGCGCGAGATCATTCGCGCGCA 637
Db 420 GACATTAAGCATATGATAGATATGATAGAGACCTTACACCTGTCAACATATTGAGAGAA 479
Qy 638 ACATGCTGACCGAGCTGAGCTGACACCTTGAATCTTCCCATATGAGCCCATCGAGACCTGTG 697
Db 480 ATCTGTGACCCAGATCGGCTGTGACCTTGAATCTTCCCATATGAGCCCATATGAGACCGTGTG 539
Qy 698 CCGTGAAGCTGAAGCCCGGAGATGAGACGAGCGCCCAAGGTGAAGAGATGAGCGCTGACCGAG 757
Db 540 CCGTGAAGTGAAGCCCGGAGATGAGACGAGCGCCCAAGGTGAAGAGATGAGCGCTGACCGAG 599
Qy 758 AGAAGATCAAGGCGCGCTGACCGCATCTGCGAGAGATGAGAGAGAGAGAGAGATCAACA 817
Db 600 AGAAGATCAAGGCGCGCTGAGATCTGACCGAGATGAGAGAGAGAGAGAGAGATCAACA 659
Qy 818 AGATCGGCGCGGAGAGACCCCTTCAACACCCCGTGTGCTCCCATCAAGAGAGAGAGAG 877
Db 660 AGATCGGCGCGGAGAGACCCCTTCAACACCCCGTGTGCTCCCATCAAGAGAGAGAGAG 719
Qy 878 CCAAGTGGCGGAGCTGTGAGCTTTCGCGAGAGCTGAACAAGCGGACCCAGGACTTTCGGG 937
Db 720 CCAAGTGGCGGAGCTGTGAGCTTTCGCGAGAGCTGAACAAGCGGACCCAGGACTTTCGGG 779
Qy 938 AGGTGACAGCTGGGATCCCGACCGCGCGCGCTGAGAGAGAGAGAGAGAGAGAGAGAG 997
Db 780 AGGTGACAGCTGGGATCCCGACCGCGCGCGCTGAGAGAGAGAGAGAGAGAGAGAGAG 839
Qy 998 TGAAGTGGGAGAGCGCTTACTTCAAGGTGCGCTGAGAGAGAGAGAGAGAGAGAGAGAG 1057
Db 840 TGAAGTGGGAGAGCGCTTACTTCAAGGTGCGCTGAGAGAGAGAGAGAGAGAGAGAGAG 899
Qy 1058 CTTTCAACATCCCGAGAGATCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1117
Db 900 CTTTCAACATCCCGAGAGATCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 959
Qy 1118 TGCCCCAGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1177
Db 960 TGCCCCAGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1019
Qy 1178 AGCCCTTCCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1237
Db 1020 AGCCCTTCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1079
Qy 1238 GCGAGCTGTGAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1297
Db 1080 GCGAGCTGTGAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1139

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Oy	1298	GCATGGGGCTTCAACAACCCCGGACAAAGAAAGACAAAGAAAGAGCCCGCTTCTGTGGATGG	1357
Db	1140	GCTGGGGCTTCAACAACCCCGGACAAAGAAAGACAAAGAAAGAGCCCGCTTCTGTGGATGG	1199
Oy	1358	GCTACGAGCTGGCAACCCCGACAAAGTGAACCTGTGACGCCATCGAGCTGCCGAGAAAGAGA	1417
Db	1200	GCTACGAGCTGGCAACCCCGACAAAGTGAACCTGTGACGCCCATCGAGCTGCCGAGAAAGAGA	1259
Oy	1418	GCTGGACCGTGGAAAGACATTCOAAGAGCTGTGGCAAGCTGAACCTGGGCCAGGCCAATCT	1477
Db	1260	GCTGGACCGTGGAAAGACATTCOAAGAGCTGTGGCAAGCTGAACCTGGGCCAGGCCAATCT	1319
Oy	1478	ACCCCGGACATCAAGAGTCCGCAAGCTGGCAAGCTGGCGGGCGGCCAAGGCCCTGACCG	1537
Db	1320	ACGCGGACATCAAGAGTCCGCAAGAGCTGGCAAGCTGGCGGGCGGCCAAGGCCCTGACCG	1379
Oy	1538	ACATCTGAGCCCTTGACCGAGAGAGCCGACGCTGGAGCTGGCCGAGAAACCGAGATCTTG	1597
Db	1380	AGGTGATCTCCCTTGACCGAGAGAGCCGACGCTGGAGCTGGCCGAGAAACCGAGATCTTG	1439
Oy	1598	GCGAGCCCTGGCAAGGCGGTGTAATTACGACCCCAAGCAAGACCTGTGTGGCCGAGATCCAGA	1657
Db	1440	AGGAGCCCTGGTCAAGAGGTGTAATTACGACCCCAAGCAAGACCTGTGTGGCCGAGATCCAGA	1499
Oy	1658	AGCAGGGCCACAGACCAATGGACCTTACCAAGATCTTACAGAGAGCCCTTCAAGACCTTGAGA	1717
Db	1500	AGCAGGGCCAGAGGCCAAGTGGACCTTACCAAGATCTTACAGAGAGCCCTTCAAGACCTTGAGA	1559
Oy	1718	CCGACAGATACGACCAAGATGGCGACCGGCCACACCAAGAGTGAAGCACTTGACCGAG	1777
Db	1560	CCGACAGATACGACCCGCAATGGCGCGGCCACACCAAGAGTGAAGCACTTGACCGAG	1619
Oy	1778	CCGTGCAAGAGATCGCCATGGAGAGCATCTGTATCTGGGGCAAGACCCCAAGTTCGCC	1837
Db	1620	CCGTGCAAGAGATGAGACACCGAGAGCATCTGTATCTGGGGCAAGATCCCAAGTTCAGC	1679
Oy	1838	TGCCCATCTCAGAAAGAGACTCTGGAGAGACTGTGTGAACCGACTACTTGGCAAGCCACCTGGA	1897
Db	1680	TGCCCATCTCAGAAAGAGACTCTGGAGAGACTGTGTGAATGTGGCAAGCCACCTGGA	1739
Oy	1898	TCCCGAGTGGAGAGTTCGTGAACAACCCCGCTGTGAAGCTGTGGTACAGCTGGAGA	1957
Db	1740	TCCCGAGTGGAGAGTTCGTGAACAACCCCGCTGTGAAGCTGTGGTACAGCTGGAGA	1799
Oy	1958	AGGAGCCCATCATCGGCGCCGAGACCTTCTTACGTGAACGGCGCCGCCAACCCGCGAGACCA	2017
Db	1800	AGGAGCCCATGTGGGCGCCGAGACCTTCTTACGTGAACGGCGCCGCCAACCCGCGAGACCA	1859
Oy	2018	AGATCGGCAAGGCGGGCTTACGTGACCGACCGGGGCGCGCAGAAAGATGTGAGCTTGACCG	2077
Db	1860	AGCTGGGCAAGGCGGGCTTACGTGACCGACCGGGGCGCGCAGAAAGTGTGAGCTTGACCG	1919
Oy	2078	AGACCAACCAACCAAGAAACCGAGCTGGAGGGCCATCCAGCTGGCCCTGACAGACAGCGGCA	2137
Db	1920	ACATCCACCAACCAAGAAACCGAGCTGGAGGGCCATCCAGCTGGCCCTGACAGACAGCGGCC	1979
Oy	2138	GCGAGGTGAACATCGTGAACCGACAGCCAGTACGCGCTTGGGGCATATCCAGGCCCGACGCCG	2197
Db	1980	TGGAGGTGAACATCGTGAACCGACAGCCAGTACGCGCTTGGGGCATATCCAGGCCCGACGCCG	2039
Oy	2198	ACAAAGCGAGAGCGAGCTGTGAAACCAAGATCATGACAGCTGATCAAGAAAGAGGAAG	2257
Db	2040	ACAAAGCGAGAGCGAGCTGTGAAACCAAGATCATGACAGCTGATCAAGAAAGAGGAAG	2099
Oy	2258	TGTACTTGAAGCTGGGTGCCCGGCCCAAGGGGATCGGGGGCAAGAGAGATTCGACAAGC	2317
Db	2100	TGTACTTGAAGCTGGGTGCCCGGCCCAAGGGGATCGGGGGCAAGAGAGGTGAGCAAGC	2159
Oy	2318	TGTGTGACAAAGGACATCCGCAAGAGTGTGTTCTTGGAACGAGCATCGATGGCGGACCTGTGA	2377
Db	2160	TGTGTGAGCGCCGGCATTCGCAAGAGTGTGTTCTTGGAACGAGCATCGATGGCGGACCTGTGA	2219
Oy	2378	TCCTACCATGATCATGGAACACTGTACTGTGGGCAAGCGGGCCCTTAGATTCGATTTAAAGC	2437

Db	2220	TCTACCGATCATGAGCACTGTACTGGCAGCCGCCCTTAGATGCATTAAAGC	2279
Qy	2438	TTCCCGGGCTAGCACCGTGTAATTC	2463
Db	2280	TTCCCGGGCTAGCACCGTGTAATTC	2305
 RESULT 7 US-09-475-515-81 Sequence 81, Application US/09475515A Patent No. 6602705 GENERAL INFORMATION: APPLICANT: BARNETT, Susan APPLICANT: ZUR MEGEDE, Jan APPLICANT: SRIVASTAVA, Indresh APPLICANT: LIAN, Ying APPLICANT: HARDOG, Karin APPLICANT: Liu Hong APPLICANT: GREER, Catherine APPLICANT: SELBY, Mark APPLICANT: WALKER, Christopher TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION FILE REFERENCE: 1621.002 CURRENT APPLICATION NUMBER: US/09/475,515A NUMBER OF SEQ ID NOS: 90 SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 81 LENGTH: 2299 TYPE: DNA ORGANISM: Artificial Sequence FEATURE: OTHER INFORMATION: Description of Artificial Sequence: US-09-475-515-81			
 Query Match            75.2%; Score 1852; DB 3; Length 2299; Best Local Similarity 89.0%; Pred. No. 5,3e-284; Matches 2052; Conservative 0; Mismatches 235; Indels 19; Gaps 4			
Qy	170	GGGGCAGAAGGGCCACGAGTGAAGGACTGACCGAGGCGCAGGCGCAACTCTTCGCGG	229
Db	1	GGGGCGCGCAGAACACCMAATGAAGATTGCACTGAGAGCAGGCTAATTTTT-AAGG	59
Qy	230	AGGACTGTGCTTTCGCCAGGCGCAAGGCCCGAGTTCGCCAGCAGAACCCGCGCA	289
Db	60	AAGATCTGGCTTCTCTACAAGGGAAGCCAGGGAATTTCTTCAAGCAGACCAAGGCA	119
Qy	290	ACAGCCCCACAGCGCGGAGCTGCAGGTGCGCGG-----ACAACCCCAGGAG	343
Db	120	ACAGCCCCACAGGAAGAGAGCTTCAGGTTTGGGAGAGAAAAACAATCCCTCTCAGAG	179
Qy	344	CCGGCGCCGAGGCGCAGGCA-----CCCTGAACCTTCCCGAGATCACCTGTGCGACG	397
Db	180	CAGGAACCGATGAGACAAAGAACTGATCTTTAACTTCCCTGATCACTCTTTGGCAAC	239
Qy	398	GCCCCCTGTGAGCATCAAGGTGCGCGCCAGATCAAGAGGCCCTGTGACACCGGCG	457
Db	240	GACCCCTGCTCAATAAAGATCGGGGGGCACTGAAGAAAGGCGTGTGATACAGAG	299
Qy	458	CCGACGACACCGTGTGAGAGAGATGAGCTTGGCCCGCGCAATGGAAGCCCAAGATATG	517
Db	300	CAGATGATACAGATATTAGAAAGAAATGTTTGCAGGAAAATGGAACCAAATAATGATG	359
Qy	518	GCGGCAATCGCGGCTTCATCAAGGTGCGCGCAGTACGACAGATCTGATCGATCTGCG	577
Db	360	GGGGGATCGGGGCTTCATCAAGGTGAGGCAATGACACAGATCCTGTGAATATGTG	419
Qy	578	GCAAGAAAGCATCGGACCGTGTGATCGGCCCAACCCCGTGAACATATCGCGCA	637
Db	420	GACATAAGCTAATGATAGATTTGTAGAGACTTACCTGTCAACATATTGGAAAGA	479

638 ACATGTCGACCCAGCTGGGCTGCACTCTGAACTTCCCATCAGGCCCATCGACCGTGC 697  
480 ATCTGTTGACCCAGATCGGCTGCACTTGAATCTCCCATCAGGCCCTATTGAGACGGTGC 539  
698 CCGTGAAGCTGAAGCCCGGAGCTGACGGGCCCAAGGTGAAGCAAGTGGCCCTGACCGAGG 757  
540 CCGTGAAGTTGAAGCCGGGAGTGAACGGGCCCAAGGTGAAGCAATGGCCATTGACCGAGG 599  
758 AGAAGATGAAGGCCCTGACCCGCATCTGCGAGGAGATGAGAAAGGAGGGCAAGATCAACA 817  
600 AGAAGATGAAGGCCCTGAGTGAAGATCTGACCGAGATGAGAAAGGAGGGCAAGATCAACA 659  
818 AGATCGAGCCCGAGAAACCTTCAACAACACCCCGTGTGCGCATCAAGAAAGAGACAGCA 877  
660 AGATCGAGCCCGAGAAACCTTCAACAACACCCCGTGTGCGCATCAAGAAAGAGACAGCA 719  
878 CCAAGTGGCGCAAGCTGTGGAATTCTCCGAGCTGAAACAAGCGCACTTCTGGG 937  
720 CCAAGTGGCGCAAGCTGTGGAATTCTCCGAGCTGAAACAAGCGCACTTCTGGG 779  
938 AGGTGACAGCTGGGCAATCCCGACCCCGCGCTGAGAAAGAAAGAGCGTGAACCGTGC 997  
780 AGGTGACAGCTGGGCAATCCCGACCCCGCGCTGAGAAAGAAAGAGCGTGAACCGTGC 839  
998 TGAACGTGGGCGACGCTACTTCAAGCGTGCCTTGAAGAGAGACTTCCGCAAGTACACCG 1057  
840 TGAACGTGGGCGACGCTACTTCAAGCGTGCCTTGAAGAGAGACTTCCGCAAGTACACCG 899  
1058 CTTTCAACATCCCGACGATCAACAAGAGACCCCGGCAATCCGCTACCAAGTACAAAGTGC 1117  
900 CTTTCAACATCCCGACGATCAACAAGAGACCCCGGCAATCCGCTACCAAGTACAAAGTGC 959  
1118 TGCCCCAGAGGCTGAAGGGGAGGCCCAAGATCTTCAAGACGACATGAACCAAGATCCCTGG 1177  
960 TGCCCCAGAGGCTGAAGGGGAGGCCCAAGATCTTCAAGACGACATGAACCAAGATCCCTGG 1019  
1178 AGCCCTTCCGCGCCCGGACACCCCGAGATCTGTGATTCACAGGCCCCCTGTACGTGGCA 1237  
1020 AGCCCTTCCGCGAGAGAAACCCCGACATCTGTGATTCACAGGCCCCCTGTACGTGGCA 1079  
1238 GCGACCTTGAGATCGGCGAGCACCGCGCCCAAGATCGAGAGAGCTGCGACGACTGTGC 1297  
1080 GCGACCTTGAGATCGGCGAGCACCGCACCAAGATCGAGAGAGCTGCGACGACTGTGC 1139  
1298 GCTGGGAGCTTCAACACCCCGGACAGAGACCAAGAGAGCCCCCTTCTGTGGAATGG 1357  
1140 GCTGGGAGCTTCAACACCCCGGACAGAGAGACCAAGAGAGCCCCCTTCTGTGGAATGG 1197  
1358 GCTACGAGCTGCAACCCCGACAAAGTGAACGCTGCAACCCCATCGAGTGCACGAGAGAGA 1417  
1198 ----GAGCTGCAACCCCGACAAAGTGAACGCTGCAACCCCATCTGTGCGAGAGAGACA 1253  
1418 GCTGGAACCTGTAACGACATCCAGAAAGCTGTGGGCAAGCTGAATCTGGGCGACCGCATCT 1477  
1254 GCTGGAACCTGTAACGACATCCAGAAAGCTGTGGGCAAGCTGAATCTGGGCGACCGCATCT 1313  
1478 AACCCTGATCAAGTGTGGCGACGCTGTGCAAGCTGTGCGGCCCAAGGCCCTGACCG 1537  
1314 ACGCGGAGATCAAGGTGAAGACGCTGTCAAGCTGTGCGGCCCAAGGCCCTGACCG 1373  
1538 ACATGTCGCCCCCTGACCGAGAGGCGGAGCTGGAAGCTGGCGAGAACCGCGAGATCTGCG 1597  
1374 AGGTGATCTCCCTGACCGAGAGGCGGAGCTGGAAGCTGGCGAGAACCGCGAGATCTGCG 1433  
1598 GCGAGCCCGGTGACGCGCTGTACTACGACCCCGAGCAAGGACCTGTGGCCGAGATCCAGA 1657  
1434 AGGAGCCCGGTGACGAGGGTGTACTACGACCCCGAGCAAGGACCTGTGGCCGAGATCCAGA 1493  
1658 AGCAGGGGCAAGACAGTGAAGCTTACAGATTTACAGAGAGCCCTTCAAGAACCTGAAGA 1717  
1494 AGCAGGGGCAAGGAGGAGTGAAGCTTACAGATTTACAGAGAGCCCTTCAAGAACCTGAAGA 1553

1718 CCGGCAAGTACGCCAAGATGCGCACCGGCCACACCAACGACGTGAAGCACTGACCGAGG 1777  
1554 CCGGCAAGTACGCCGAGATGCGCGGCCGCCACCAACGACGTGAAGCAAGCTGACCGAGG 1613  
1778 CCGTGAAGAGATGCGCATGGAAGGATCTGTGATCTGGGGGGAAGACCCCGCAAGTTCCGCC 1837  
1614 CCGTGAAGAGTGAAGACCCGAGAGCATCTGTGATCTGGGGGGAAGATCCCGCAAGTTCAAGC 1673  
1338 TGCCCATTCAGAAAGAGACCTGGAAGACCTGTGGAACCGACTTACGAGAGGCCACCTGGA 1897  
1674 TGCCCATTCAGAAAGAGACCTGGAAGAGCTGTGGAAGGCTGTGGAAGTACTGCGAGGCCACTGGA 1733  
1898 TGCCCGAGTGAAGTCTGTGAACACCCCGCTGTGGAAGCTGTGGAACGAGCTGGAAGA 1957  
1734 TGCCCGAGTGAAGTCTGTGAACACCCCGCTGTGGAAGCTGTGGAACGAGCTGGAAGA 1793  
1958 AGGAGCCCATCATGTGGCGCGGAGACCTTCTACCTGTGGAACGGGGCGGCAACCGCGAGACCA 2017  
1794 AGGAGCCCATCATGTGGCGCGGAGACCTTCTACCTGTGGAACGGGGCGGCAACCGCGAGACCA 1853  
2018 AGATCGGCAAGGCGGCTACGTAACCGACCGAGCGGCGGCAAGAAATCGTGAAGCTGACCG 2077  
1854 AGCTGGGCGAAGCCCGCTACGTGACCGACCGGGGCCGAGAAAGTGTGAGCATCGCG 1913  
2078 AGACCAACCAACAGAAAGACCGAGCTGACAGGCCCATCAAGCTGACCTGCAAGACAGCGCA 2137  
1914 ACACCAACCAACAGAAAGACCGAGCTGACAGGCCCATCAAGCTGACCTGCAAGACAGCGCC 1973  
2138 GCGAGGTGAACATGTGTGACCGACAGCAGTACGCGCTGTGGGAGTATCCAGGCCCGACGCCG 2197  
1974 TGAAGGTGAACATGTGTGACCGACAGCAGTACGCGCTGTGGGAGTATCCAGGCCCGACGCCG 2033  
2198 ACAAGAGGAGAGGAGCTGTGTAACAGATCATCGAGAGCTGATCAAGAAAGAGAGG 2257  
2034 ACAAGAGGAGAGGAGCTGTGTAACAGATCATCGAGAGCTGATCAAGAAAGAGAGG 2093  
2258 TGTAAGTGTGGTGTGCGGCCCAAGAGGCAATCGCGGCAAGAGCAATCGAACAGC 2317  
2094 TGTAAGTGTGGTGTGCGGCCCAAGAGGCAATCGCGGCAAGAGCAATCGAACAGC 2153  
2318 TGTGAGAGCAAGGCAATCGGCAAGTGTCTGTGAGACGGATGATGATGGCCGATCTGGA 2377  
2154 TGTGAGAGCGCGGATCGCAAGGTGTCTGTGAGACGGATGATGATGGCCGATCTGGA 2213  
2378 TCTACAGTATACGAGACCTGTACGAGGAGCGGCGGCTTGAAGTCAATTTAAAGC 2437  
2214 TCTACAGTATACGAGACCTGTACGAGGAGCGGCGGCTTGAAGTCAATTTAAAGC 2273  
2438 TTCCCGGGGCTAGCACCGGTGAATTC 2463  
2274 TTCCCGGGGCTAGCACCGGTGAATTC 2299

RESULT 8  
US-09-393-795-10  
; Sequence 10, Application US/09393795  
; Patent No. 6958226  
; GENERAL INFORMATION:  
; APPLICANT: Gray, John T.  
; TITLE OF INVENTION: Packaging Cell Lines  
; FILE REFERENCE: CMC693p2A  
; CURRENT APPLICATION NUMBER: US/09/393,795  
; CURRENT FILING DATE: 1999-09-10  
; PRIOR APPLICATION NUMBER: US 60/100,063  
; PRIOR FILING DATE: 1998-09-12  
; PRIOR APPLICATION NUMBER: US 60/100,022  
; PRIOR FILING DATE: 1998-09-11  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: FastSeq for Windows Version 3.0  
; SEQ ID NO 10  
; LENGTH: 3012  
; TYPE: DNA

ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Codon optimized form of HIV pol coding region  
 FEATURE:  
 NAME/KEY: CDS  
 LOCATION: (1)...(3012)  
 us-09-393-795-10

Query Match 72.6%; Score 1788.8; DB 3; Length 3012;  
 Best Local Similarity 89.7%; Pred. No. 5.1e-274;  
 Matches 1961; Conservative 0; Mismatches 207; Indels 18; Gaps 3;

QY 220 TTTTCCGAGAGACTGAGCTTCCCTCCCAAGGCAAGGCCCGAGATTCTCCCAAGGCAAG 279  
 DB 1 TTTTTCAGGAAAGATCTGAGCTTCCCTCCCAAGGCAAGGCCCGAGATTCTTTCAGAGCAG 60  
 QY 280 AACCGGCGCAAGGCCCGCAAGCGCGAGCTGAGGAGCGCGG-----CGACAACGCC 333  
 DB 61 ACCAGAGCCAGAGGCCCGCAAGAGAGAGCTTCAGTTTGGGAAAGAGACACACATCC 120  
 QY 334 CGCAGCAGAGCGCGCGCGAGCGCGAGGCA-----CCCTGAACTTCCCGCAGATCAAC 387  
 DB 121 CTCTCAGAAAGCAGAGCGGATGAGACAGGAACTGATCTTTAGCTTCCCTCAGATCACT 180  
 QY 388 CTGTGGCAGCGCCCTGTGTGAGCATCAAGTGGCGCGCAGATCAAGAGGCCCTGTG 447  
 DB 181 CTTTGGCAGCGACCCCTGTGTCAATTAAGATCGGTGGCGCAGCTGAAGAGGCCCTGTG 240  
 QY 448 GACACCGCGCGCGAGACACCCCTGTGTGAGAGAGATGAGCTGCGCGGCAAGTGAAGGCC 507  
 DB 241 GACACCGCGCGCGAGACACCCGTGTGAGAGAGATGAGCTGCGCGCGCTGAAGGCC 300  
 QY 508 AAGATGATCGGCGGAGCATCGCGGCTTCATCAAGTGCAGCAGTGCAGATCTGTATC 567  
 DB 301 AAGATGATCGGCGGAGCATCGCGGCTTCATCAAGTGCAGCAGTGCAGATCTGTATC 360  
 QY 568 GAGATCTGCGGAGAGAGAGCCATCGGCAACGTGTGTATGAGGCCCAACCCCGTGAACATC 627  
 DB 361 GAGATCTGCGGAGAGAGAGCCATCGGCAACGTGTGTATGAGGCCCAACCCCGTGAACATC 420  
 QY 628 ATGCGCGCGAGACATGTGTGACCCAGCTGAGGCTGCAACCTTCCCAATCCCGCATC 687  
 DB 421 ATGCGCGCGAGACATGTGTGACCCAGCTGAGGCTGCAACCTTCCCAATCCCGCATC 480  
 QY 688 GAGACCGTGCCTGTGAAGCTGAAGCCCGGATGAGAGCGGCCCAAGGTGAAGAGTGGCC 747  
 DB 481 GAGACCGTGCCTGTGAAGCTGAAGCCCGGATGAGAGCGGCCCAAGGTGAAGAGTGGCC 540  
 QY 748 CTGACCGAGAGAGAGATCAAGGCCCTGACCGCCATCTGCGAGAGATGAGAGAGAGGCC 807  
 DB 541 CTGACCGAGAGAGAGATCAAGGCCCTGAGCGCTGTGAGATCTGACCGAGATGAGAGAGAGGCC 600  
 QY 808 AAGATCAACCAAGATGAGGCCCGCGAGAACCCCTTACACACCCCGGTGTTCCCATCAAGAG 867  
 DB 601 AAGATCTCCAAAGATCGGCGCGCGAGAACCCCTTACACACCCCGGTGTTCCCATCAAGAG 660  
 QY 868 AAGGACAGACCAAGTGGGAGCAAGCTGTGAGCTTCCGAGCTGAACAGGSCACCCAG 927  
 DB 661 AAGGACCTCAACCAAGTGGGAGCAAGCTGTGAGCTTCCGAGCTGAACAGGSCACCCAG 720  
 QY 928 GACTTCTGGAAGAGTGAAGCTGAGCATCCGCCACCCCGCGGCTGTAAGAGAGAGAGC 987  
 DB 721 GACTTCTGGAAGAGTGAAGCTGAGCATCCGCCACCCCGCGGCTGTAAGAGAGAGAGC 780  
 QY 988 GTGACCGTGTGAGAGCTGGGAGCAGCTTACTTAAAGGTGCGCCCTGTAAGAGAGAGC 1047  
 DB 781 GTGACCGTGTGAGAGCTGGGAGCAGCTTACTTCTCGTGCCTTGAACAAGAGACTTCGCG 840  
 QY 1048 AAGTACACGCGCTTCAACATCCCGAGCATCAACAGAGAGAGAGAGAGAGAGAGAGAG 1107  
 DB 841 AAGTACACGCGCTTCAACATCCCGCTCTCATACACAGAGAGAGAGAGAGAGAGAGAG 900  
 QY 1108 TACAACTGTGCTGCCCAAGGAGCTGAAGAGGAGGCCCAAGCATCTTCCAGAGCAGATGACC 1167

DB 901 TACAACTGTGCTGCCCAAGGAGCTGAAGAGGAGCTCCCGCATCTTCCAGTGTCCATGACC 960  
 QY 1168 AAGATCTGAGAGCCCTTCCCGCGCGCGAGAACCCCGAGATCTGATCTTACCA-----GGCC 1221  
 DB 961 AAGATCTGAGAGCCCTTCCCGAGCAGAGAACCCCGAGATCTGATCTTACATGATCAATGAGC 1020  
 QY 1222 CCCCTGATCGTGGGAGAGAGCTGAGAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1281  
 DB 1021 GACCTGTACGTGGGCTCGACCTGAGAGATCGGACGACACCGCACCAAGATGAGAGAGCTG 1080  
 QY 1282 CGCAGACACTGTGCGCTGGGAGCTTTCACCAACCCCGAGCAAGAGAGAGAGAGAGAGAGAG 1341  
 DB 1081 CGCAGACACTGTGCGCTGGGAGCTTTCACCAACCCCGAGCAAGAGAGAGAGAGAGAGAGAG 1140  
 QY 1342 CCTTCTGTGATGAGGCTTACAGAGTGCACCCCGAGCAAGTGAACCTGTGAGCTTCCAG 1401  
 DB 1141 CCTTCTGTGATGAGGCTTACAGAGTGCACCCCGAGCAAGTGAACCTGTGAGCTTCCAG 1200  
 QY 1402 CTGCGCGAGAGAGAGAGTGCACCGTGAACCATCCAGAAAGCTGTGGGAGAGCTGAAC 1461  
 DB 1201 CTGCGCGAGAGAGAGTGCACCGTGAACCATCCAGAAAGCTGTGGGAGAGCTGAAC 1260  
 QY 1462 TGGGCGACAGATCTACCCCGCATCAAGGTGCGCAGCTGTGCAAGCTGTGCGCGCGC 1521  
 DB 1261 TGGGCGCTCCAGATCTACCGCGCATCAAGTCCCGCAGCTGTGCAAGCTGTGCGCGCGC 1320  
 QY 1522 GCCAAGGCGCTGACCGACATCGTGCCTGTGACCGAGAGGCGGAGCTGAGCTGCGCGAG 1581  
 DB 1321 ACCAAGGCGCTGACCGAGGTGGTGCCTGTGACCGAGAGGCGGAGCTGAGCTGCGCGAG 1380  
 QY 1582 AACCGCGAGATCTGCGCGAGAGCGCGGTGACCGCGGTGTCTACGACCCCAAGAGAGAGC 1641  
 DB 1381 AACCGCGAGATCTGCGCGAGAGCGCGGTGACCGCGGTGTCTACGACCCCAAGAGAGAGC 1440  
 QY 1642 GTGGCGAGATCTCAAGAGAGAGGCGCACAGACAGTGAACCTTACAGATCTTACAGAGAGC 1701  
 DB 1441 ATGCGCGAGATCTCAAGAGAGAGGCGCACAGGCGCAGTGAACCTTACAGATCTTACAGAGAGC 1500  
 QY 1702 TTTCAAGAACTGTGAAGACCGGCAAGTACCGCAAGATGCGCACCGGCCACACCAACGACGTG 1761  
 DB 1501 TTTCAAGAACTGTGAAGACCGGCAAGTACCGCCCGCATGAAGGCGGCCACACCAACGACGTG 1560  
 QY 1762 AAGCAGCTGACCGAGGCGGTGTGAAGATCGGCATGAGAGAGATGTGTGTGAGGCGCAG 1821  
 DB 1561 AAGCAGCTGACCGAGGCGGTGTGAAGATCGGCATGAGAGAGATGTGTGTGAGGCGCAG 1620  
 QY 1822 ACCCCCAAGTTCCGCGCTGCGCATCCAGAGAGAGACCTGGGAGACCTGTGTGAAGCTAC 1881  
 DB 1621 ACTCCCAAGTTCAAGCTGCGCATCCAGAGAGAGACCTGGGAGAGCTGTGTGAAGCTAC 1680  
 QY 1882 TGGCAGGCGCACTGATCCCGAGTGGAGATTGTGAACACCCCGCTGTGTGAAGCTG 1941  
 DB 1681 TGGCAGGCGCACTGATCCCGAGTGGAGATTGTGAACACCCCGCTGTGTGAAGCTG 1740  
 QY 1942 TGGTACAGCTGAGAGAGAGCTCATCATCGGCGCGAGACCTTCTTACGTGAGAGCGCGC 2001  
 DB 1741 TGGTACAGCTGAGAGAGAGCTCATCATCGGCGCGAGACCTTCTTACGTGAGAGCGCGC 1800  
 QY 2002 GCCAACCGGAGACCAAGATCGGCAAGGCGGCTTACGTGAACCGAGCGGAGCGGCGAGAG 2061  
 DB 1801 GCCAACCGGAGACCAAGATCGGCAAGGCGGCTTACGTGAACCGAGCGGAGCGGCGAGAG 1860  
 QY 2062 ATCGTACGCTGACCGAGACCAACCAACAGAGACCGAGCTGAGGCAATCCAGCTGGCC 2121  
 DB 1861 GTGGTCCCTTACCGAGACCAACCAACAGAGACCGAGCTGAGGCAATCCAGCTGGCC 1920  
 QY 2122 CTGCAAGACAGGCGGAGCGAGGTGAACATCTGTACCGAGACCAAGTACCCCTGTGGCATC 2181  
 DB 1921 CTGCAAGACAGGCGGAGCGAGGTGAACATCTGTACCGAGTACCCCTGTGGCATC 1980  
 QY 2182 ATCCAGGCGCGAGCGGAG 2241



Db		1981	ATCCAGGCCACGCCCCGAACAATTCCGAGTCCGAGCTGTGTCCAGATCATCGACACTG	2040
Qy		2242	ATCAAGAAGAGAAAGTTGTACTTGAGCTGGTGTCGCCCAACAAGGCATCGCGCGAAC	2301
Db		2041	ATCAAGAAGAGAAAGTTGTACTTGAGCTGGTGTCGCCCAACAAGGCATCGCGCGAAC	2100
Qy		2302	GAGCAGATTCGACCAAGCTGTGAGCAAGGGCATCCGCAAGGTGCTTTCTTGAACGGCATC	2361
Db		2101	GAGCAGGTGGACCAAGCTGTGTGTCGCCCGGCATCCGCAAGGTGCTGTCTTCTTGAACGGCATC	2160
Qy		2362	GATGGCGGCATCTGTGATCTAACAGTA	2387
Db		2161	GACAAAGGCCACGAGAGACGAGAA	2186

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RESULT 9
US-09-552-950-2
: Sequence 2, Application US/09552950
: Patent No. 6541248
: GENERAL INFORMATION:
: APPLICANT: Oxford Biomedica (UK) Limited
: TITLE OF INVENTION: Anti-Viral Vectors
: FILE REFERENCE: 674524-2004
: CURRENT APPLICATION NUMBER: US/09/552,950
: CURRENT FILING DATE: 2000-04-20
: NUMBER OF SEQ ID NOS: 22
: SOFTWARE: PatentIn Ver. 2.1
: SEQ ID NO 2
: LENGTH: 4307
: TYPE: DNA
: ORGANISM: Artificial Sequence
: FEATURES:
: OTHER INFORMATION: Description of Artificial Sequence: gagpol - synbp - codon
US-09-552-950-2

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Query Match	67.1%	Score 1651.8	DB 3	Length 4307
Best Local Similarity	82.5%	Pred. No. 2.3e-252		
Matches 1939, Conservative	0	Mismatches 391	Indels 19	Gaps 4

QY	3	GGCCACGAGGGCGCAACATCTGATGACAGGGAGCACTTTCAAAGGGGCCCAAGCGCATCAT	92
Db	1110	GACCAACTCCGCGTACATCATATGATGACAGGGCGCAACTTTTCGAAACAACGCAAGATGT	11687
QY	93	CAAGTGTCTTCAACTCCGCGCAAGAGAGGCGCATATGCGCCGCAACTGCGCGCCCCCGCA	152
Db	1170	CAAGTGTCTTCAACTGTGTGCAAAAGAGGCAACAAGCCGCAACTGTCAGAGGCCCTTAGAA	1229
QY	153	GAAGGGCTGCTGGAAAGTGGCGGCGCAGAGAGGCGCACAGATGAAAGATCTGACACGAGCGCA	212
Db	1230	AAAGGGCTGCTGGAAATGGCGCAAGAGGCGCACAGATGAAAGCTTTACGAGAGACA	1289
QY	213	GGCCAACTCTTCCGCGAGAGCATCTGGCCCTTCCCCCGAGGCAAGGCCCGCGAGTTTCCAG	272
Db	1290	GGCTAA-TTTTITTAGGAAAGATCTGGCTTCTCTCAAGAGAAAGCGCAAGGAATTTCTTC	1348
QY	273	CGAGCAGAACCGCGCCCAACAGCCCCCAAGCCGCGAGCTTGCAGT-----GCGCGCGCA	326
Db	1349	AGAGCAGACCGCGCGCAACAGCCCCCAACCGCGCGCAGAGCTTCAAGTCTGGGGTCCGAGACA	1408
QY	327	CAACCCCCCGCAGCGCGCGCGCGCAGACGCGCAAGGCA-----CCCTGAACCTTCCCCCA	380
Db	1409	CAACTCCCCCTCCGAGCAGAGAGGCCGACCGCCAGGGCACGGTGTCTTCAACTTCTCTCA	1466
QY	381	GATCACTCCGTGTGGCAGCGCGCCCTTGATGAGCATCAAGGTGGCGCGCCAGATCAAGAGGC	440
Db	1469	GGTCACTGTTTGGCGAGCAGCCCTTGATGATCAATCAAGATTCGGGGGGCAGCTCAAGAGAGGC	1528
QY	441	CTGTGTGACACCGCGCGCGCGAGACACCGTGTGTGAGAGAGATGAGCCTGCGCCGCGCAATG	500
Db	1529	TCTCTGTGACACCGAGCAGAGAGACACCGTGTGTGAGAGAGATGTCTTTCACAGGCGCTG	1588
QY	501	GAAGCCCAAGATGATCGCGGCGATCGCGGCTTCAATCAAGGTGGCGCCAGTACGACCAT	560

Db	1589	GAAGCCGAAGATGATCGGGGGAATCGGCGGTTTCAATGAAGTGGCCAGATGACAGAT	1648
OY	561	CTGTATGAGATCTGCGCAAGAGGCCATGCGCACCTGTCTGATCGGCCCCACCCCGT	620
Db	1649	CCTCATCGAAATCTGCGGCCCAAGAGGCTATCTGATACGTCGTGTGTGGGCCCCACACCGT	1708
OY	621	GAACATCATCGGCGCGCAATATCTGATCCCAAGCTGGGCTGCAACCTGTAACTTTCCCATCAG	680
Db	1709	CAACATCATCGGAAGGCAACCTGTGTGACGAGATCGTTGTGACGCTGTAACTTCCCATTAG	1768
OY	681	CCCCATCGAGACGCTGCGCCCTGGAAGCTGGAAGCCCGCATGGAACGAGCCCAAGGTGAAGCA	740
Db	1769	CCCTATCGAGACGCTTACCGGTGAAGCTGAAAGCCCGGATGGAACGAGCCCGAAGGTCAAGCA	1828
OY	741	GTGGCCCCCTGACCGAGAGAAAGATCAAGGCCCTGACCGCATCTGCGAGAGATGAGAA	800
Db	1829	ATGGCCATGTGACAGAGGAAAGATCAAGGCACTGTGTGAAGTTTGACAAGAGATGAAAA	1888
OY	801	GGAGGCGAAGATCAACCAAGATCGGCCCGCGAAGAACCTCTACACACCCCCGTGTTCGCAT	860
Db	1889	GGAAGGGAATCTCCAAAGATTGGGCGCTGAGAACCGGTACACACGCGCGGTTCGCAAT	1948
OY	861	CAAGAAGAAGGACAGCAACCAAGTGGCGCAAGCTGTGTGACCTTCCGCGAGCTGAACAAGCG	920
Db	1949	CAAGAAGAAGGACTCGACGAATATGGCCCAAGCTGTGTGACCTTCCGCGAGCTGAACAAGCG	2008
OY	921	CACCCAGGACTTCTGGAGAGGTGCAGCTGTGGCATCCCCACCCGACCGGCTGAAAGAA	980
Db	2009	CACCCAGGACTTCTGGAGAGGTTCAGCTGTGGCATCCCCACCCGAGGCTGAAGAA	2068
OY	981	GAAGAAGGTGACCGTGTGACGTTGTGGCGACGCTTACGTGACGCTGCCCTTGCAGAGGA	1040
Db	2069	GAAATCCGTGACCGTTCATGAGATGTGGGTGATGCTTATCTTCCCTTCCCTGACGAGA	2128
OY	1041	CTTCGGAAGTACACCGGCTTCAACATGCCAGATCAACAAGAGACCCCGGATCCG	1100
Db	2129	CTTGAAGAAAGTACCTGCTTTCACAAATCCCTTGATCAACAAGAGACCCCGGATTCG	2188
OY	1101	CTTACAGTACCAACCTGTGCTGCCCGAGGCTGGAAGGAGCGAGCCCAAGCATCTTCCAGACAG	1160
Db	2189	ATATCATGATCAACGTCGTGCTGCCCGAGGCTGGAAGGCTCTCCGCAATCTTCCAGAGTAG	2248
OY	1161	CATGACCAAGATCTGTGAGGCCCTTCGCGCCCGCAACCCCGAAGATGTTATCCA--	1217
Db	2249	CATGACCAAAATCTGTGAGGCTTTCGCCAAACAGAACCCCGACATCTGTATCTTATGTA	2308
OY	1218	---GGCCCCCTGTACGTGTGGCAAGCACTGTGAGATGGGCGACAGCCGCGCAAGATCGA	1274
Db	2309	CATGATGTACTTGTACGTGTGGCTGTGATCTAGAGATGGGCGAGCACCAAGATCGA	2368
OY	1275	GGAGCTGGCAAGAGACCTGTGCGCTGTGGGCTTCAACACCCCGCAACAAGACACAGAA	1334
Db	2369	GGAGCTGGCGCAGCACTGTGTGAGTGGGACTGACACACCCGACAAAGAGCACAGAA	2428
OY	1335	GGAGCCCCCTTCTGTGTGATGGCTCAAGACTTGCACCCCGACAAGTGAAACCTGTGAGCC	1394
Db	2429	GGAGCTTCCCTTCTGTGTGATGGGTTACAGACTGCACCTGTGACAAATGTGACCGTGAAGCC	2488
OY	1395	CATGAGCTGCCAGAGAGAGAGAGCTGACCGTGTAAAGCATCCAGAAAGCTGTGTGGCAA	1454
Db	2489	TATGTGTGTGCAGAGAAAGACACTGTGACTGTCAAGACATACAGAAAGCTGTGTGGGAAA	2548
OY	1455	GCTGACGTGGGCGAGCAGATCTACCCCGGATCAAGGTGTGCGCAGCTGTGTGCAAGCTGCT	1514
Db	2549	GTTGACGTGGGCGAGCAGATTTTACCAAGGATTTAAGGTGTGAGCAGCTGTGTCAAACTCT	2608
OY	1515	GCAGCGGCGCAAGGCCCTGACCGACATCTGTGCCCTGTACCGAGAGAGGCGCAGCTGTGAGCT	1574
Db	2609	CCGCGGAACCAAGGCACTCACAGAGGTGTATCCCTTAACCGAGAGGCGCAGGCTCGAATCT	2668
OY	1575	GGCGGAGAACCGCAGATCTCTGCGCGAGCCCGTGTGACAGGCTGTATCTACAGCCCAAGCA	1634

Db	2669	GGCAGAAAAACCGAGAGATCTCTAAAGAGAGCCCGTGCAGAGGGGTGTACATATGACCCCTCCAA	2728
QY	1635	GGAACCTGTGTGGCCCGAGATCCAGAAAGCAGGGCCACAGCAAGTGAACCTTACCAATCTTACCA	1694
Db	2729	GGACCTGATCGCCGAGATCCAGAAAGCAGGGCCAGAGCCAGATGGACCTTATCAGATTATTCGA	2788
QY	1695	GGAGCCCTTCAAGAACTTGAAAGACCCGCGCAAGTACGCCAAGATGGGCACCCGCCACACAA	1754
Db	2789	GGAGCCCTTCAAGAACTTGAAAGACCCGCGCAAGTACGCCGATGGAGGGGTGCCACACTTAA	2848
QY	1755	CGACGTGAAGCAGCTGACCCGAGGCCGCTGCAGAAAGATCGCCATGTGAGAGCATCTGATCTG	1814
Db	2849	CGAGCTGACAGCAGCTGACCCGAGGCCGCTGCAGAAAGATCACCACCGAAAGCATCTGATCTG	2908
QY	1815	GGGCAAGACCCCAAGTTCCGCTCGCCCATTCAGAAAGAGACTTGGAGAGACTTGTGTGAC	1874
Db	2909	GGGAAAGACTCTTAAGTTCAAGCTGCGCCATTCAGAAAGAAACTTGGGAAACTGTGTGTGAC	2968
QY	1875	CGACTACTGGCAGGCGCACCTGTGATCCCGAATGGAGATTCGTGAAACACCCCGCCCTGTGT	1934
Db	2969	AGAGTATTGGCAGGCGCACCTGTGATTCGTGATGGAGATTCGTGAAACACCCCTCCCTGTGT	3028
QY	1935	GAACTGTGATACCAAGCTGAGAGAGAGAGCCCATCATCGGCCGCCAGACTTCTTACGTGGA	1994
Db	3029	GAACTGTGATACCAAGCTGAGAGAGAGAGCCCATCATGTGGCCGCCAGAACTTCTTACGTGGA	3088
QY	1995	CGGCGCCGCCAACCAGCCGAGACCAAGATCGGCAAGGCGCGCTTACGTGACCGACCGGGGCGG	2054
Db	3089	TGGGGCGCGCTTAACAGGAGACTTAAGCTGTGGCAAGCCGGATACGTCACTAACCGGGGCGAG	3148
QY	2055	GCAGAAAGATCGTGAAGCTTGACCGAGACCAACCAACCAAGAACCCAGCTGCGAGGCGATCCA	2114
Db	3149	ACAGAAAGTGTGTACACCTCTCACTGACACCAACCAACCAAGAAAGCTGAGCTGCGAGGCGATTTA	3208
QY	2115	GCTGGCCCTTGACAGGACAGCGGAGCGAGGTGAACATCTGTGACCCGACCAAGCTAGTACGCCCT	2174
Db	3209	CCTGCTTTTGGACAGACTCGGGCTGTGAAGTGAACATCTGTGACAGACTCTCAGTAGCCCT	3268
QY	2175	GGGCACTATCCAGAGCCCAAGCCCGACCAAGAGCGAGCGAGCTGTGAACCAAGATCATCGA	2234
Db	3269	GGGCACTATTTCAAGGCCCAAGCCCAAGAGCTGAAGTCCGAGCTGTGTCAATCAGATCATCGA	3328
QY	2235	GCAGCTGATCAAGAGAGAGAGGTGTACTGAGCTGTGGTCCCGGCCCAAGGGCATCGG	2298
Db	3329	GCAGCTGATCAAGAGAGAGAGGTGTACTGTGGCTGTGGTACCCCGGCCCAAGAGGCAATGG	3388
QY	2235	CGGCAACAGCAGATCGACCAAGCTGTGACAAAGGGCAATCCGCAAGTGTCTGTCTGGA	2354
Db	3389	CGGCAATGACAGGCTGCACAAAGCTGTCTCGGCTGTGCATCAGAAAGTGTCTTCTTGTGA	3444
QY	2355	CGGCATTCGA 2363	
Db	3449	TGGCATTCGA 3457	
RESULT 10			
US-09-936-572-2			
; Sequence 2, Application US/09936572			
; Patent No. 6783981			
; GENERAL INFORMATION:			
; APPLICANT: UDEN, MARK			
; APPLICANT: MITROPHANOUS, KYRIACOS			
; TITLE OF INVENTION: ANTI-VIRAL VECTORS			
; FILE REFERENCE: 078883/0137			
; CURRENT APPLICATION NUMBER: US/09/936,572			
; CURRENT FILING DATE: 2001-12-11			
; PRIOR APPLICATION NUMBER: PCT/GB00/01002			
; PRIOR FILING DATE: 2000-03-17			
; PRIOR APPLICATION NUMBER: GB 9906177.2			
; PRIOR FILING DATE: 1999-03-17			
; NUMBER OF SEQ ID NOS: 73			
; SOFTWARE: PatentIn Ver. 2.1			
; SEQ ID NO 2			

	:	LENGTH:	4307	
	:	TYPE:	DNA	
	:	ORGANISM:	Artificial Sequence	
	:	FEATURE:		
	:	OTHER INFORMATION:	Description of Artificial Sequence:	
	:	OTHER INFORMATION:	gaspol-synmp-codon optimized gaspol sequence	
	:	US-09-936-572-2		
		Query Match	66.3%; Score 1632.6; DB 3; Length 4307;	
		Best Local Similarity	82.0%; Pred. No. 2.4e-249;	
		Matches 1927; Conservative	0; Mismatches 403; Indels 19; Gaps 4;	
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Db		1110	GACCACCTCCGCTTCACATCATGATGTCAGCGGGCACTTTGGAAACCAACGAAGATGCT	1165
Oy		93	CAAGTGCTTCAACTGCGGCAAGAAGAGGCGCACATGCGCCGCACTGCGCGCCCCCGCA	152
Db		1170	CAAGTGCTTCAACTGTGTGCAAAAGAGGCGCACAGCCCGCACTGCAGAGGCCCTTAGAA	1229
Oy		153	GAAGGCGCTGCGAAGTGTGGGCAAGAAGGCGCACAGATGAAGACTSCACGAGCGCA	212
Db		1230	AAAAGGCTGTGGAATCGGCAAGAGAGGCGCACAGATGAAGACTGTACTGAGAGCA	128
Oy		213	GGCCCACTTCTTCGCGAGAGACTTGCGCTTCCCAGGCAAGGCCCGCGAGTTCCCAAG	272
Db		1290	GGCTAA-TTTTTTAAGGAAGATCTGTGCTTCTTAAGAGAAAGCCAGGAAATTTTCTTC	1348
Oy		273	CGAGCAGAACCGCGCCAACAGCCCCACAAGCCGCGAGTGTGAGTGCGCGG-----CGA	326
Db		1349	AGAGCAGACACAGAGCCAAACAGCCCAACAGAAAGAGGCTTCAAGTCTGTGGGTAGAGAA	1408
Oy		327	CACCCCCCGGACCGAGGCGCGCGCGCAAGGCGCA-----CCTGAATTCTCCCA	380
Db		1409	CAACTCCCCCTTCAGAGAGAGAGCGCGAATGACAGAGAACTGTATCTTTAACTTCTCTCA	1466
Oy		381	GATCACTCTTGTGCAACGACCCCTCTGTCAACATAAAGTAAAGGGGGGCGACTCAAGAGGC	1528
Db		1469	GATCACTCTTGTGCAACGACCCCTCTGTCAACATAAAGTAAAGGGGGGCGACTCAAGAGGC	1528
Oy		441	CCTGTGTGACACCGCGCGCGAGCAGCACCGTGTGTGAGAGATGAGCCTGCCGGCAAGTG	500
Db		1529	TCTCTGTGACACCGGAGCAGACGACCGTGTGTGAGAGATGTTGTGTTCCAGGCGCGCTG	1588
Oy		501	GAAAGCCCAAGATGATTCGGCGCGCATGGGGGCTTATCAAGGTGGSGCGATACGACAGAT	560
Db		1589	GAAAGCCCAAGATGATTCGGGGGATGGGGGCTTATCAAGGTGGSGCGCGATACGACAGAT	1644
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Oy		621	GAAATCATTCGCGCGCAACATGCTGACCCAGTGGGTGCGACCTTGAACTTCCCATCAAG	680
Db		1709	CAACATCATTCGAGCGCAACCTGTATCGCAGATTCGTTGCAAGCTTGAACTTCCCATTAG	1766
Oy		681	CCCCATCGAGACCGTGTGCCGTGAACCTGAAGCCCGGCAATGACCGGCCCAAGTGAAGCA	740
Db		1769	CCCTATCGAGAGGTATCCGSTTAAGCTGAAGCCCGGCAATGACCGGCCCAAGTGAAGCA	1822
Oy		741	GTGGCCCTCGAGCGAGAGAGATCAAGGCGCTTGACCGCGCATCTGTGAGAGATGAGAA	800
Db		1829	ATGGCCATTGACAGAGAGAGATCAAGGCGCTGTGTGAGAGATTTTGACAGAGATGAGAAA	1881
Oy		801	GAGAGGCAAGATCAACAGATTCGCGCCCGAGAACCCCTTAACAACCCCGTGTGGCAT	860
Db		1889	GGAAGGAAAAATCTCCAAATGTGGCGCTGAAGAACCGGTAAACAACGCGCGGTGTGGCAT	1941
Oy		861	CAAGAGAGAGCAGACCAAGTGTGCGAAGCTGTGTGACTTCGCGAGCTGAACAAGCG	920
Db		1949	CAAGAGAGAGACTCGACAAATATGGGCGAAGCTGTGTGTGCTTCGCGAGCTGAACAAGCG	2001
Oy		921	CACCCAGCACTTCTGGAGGTGAGCTGAGTGGCATTCGCCCAACCCCGCGGCTGAAGAGAA	980



QY 273 CGAGAGAACCGCGCAACAGCCCAACGCGCGAGCTGAGTGCCGG-----CGA 326  
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Db 1369 AGAGAGACGAGAGCAACAGCCCAACGAGAGAGCTTCAAGTTTGGGAGAGAGACA 1428  
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QY 327 CAACCCCGCAGAGCGCGCGCGAGAGCGCAAGGCA-----CCCGAATTCGCCCA 380  
| | | | |  
Db 1429 CAACCTCCCTCAGAGAGAGAGCGAGATGACAGAGAACTGATCTTTAGCTTCCCTCA 1488  
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QY 381 GATCACTCTGTGAGCAGCGCCCTGTGTGAGCATCAAGGTGGCGCGCAGATCAAGAGAGC 440  
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Db 1489 GATCACTTTTGGCAGCGACCCCTCTGTCAATTAAGATAGGGGGGAGCTCAAGAGAGC 1548  
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QY 441 CCTGTGAGCAACCGCGCGCGAGCAACCGTGTGAGAGAGATGAGCTGCGCGCAAGTG 500  
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QY 501 GAAGCCCAAGATGATCGCGCGCATGCGCGGCTTTCATCAAGGTGGCGCAGTACAGACAGAT 560  
| | | | |  
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QY 621 GAACATCATCGCGCGCAACATGCTGACCGAGCTGGCTGCAACCTTGAATCCCATCG 680  
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QY 681 CCCCATCGAGACGTCGCGCGTGAAGCTGAAGCCCGCAGTACAGCGCGCCCAAGTGAAGCA 740  
| | | | |  
Db 1789 CCTATCGAGACGCTACCGGTGAAGCTGAAGCCCGGAGTGAACGCGCCCAAGTCAAGCA 1848  
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QY 741 GTGGCCCCCGAGCCGAGAGAGAGATCAAGGCCCTGACCGGCATCTGCGAGAGATGAGAA 800  
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Db 1849 ATGGCCATTGAGAGAGAGAGAGATCAAGGCACTGTGAGATTTGACAGAGATGAGAAA 1908  
| | | | |  
QY 801 GGAGGCGAAGATCAACAGATCGGCGCGAGAACCCCTTACAAACCCCGGTGTTCCGCAT 860  
| | | | |  
Db 1909 GGAGGAGAGAAATCTCCAAATTTGGGCTGTAGAACCGGTACAAACGCGCGGTGTTCCCAT 1968  
| | | | |  
QY 861 CAAGAGAGAGAGACAGACCAAGTGGCGCAAGCTGTGTGACTTCCGCGAGCTGAACAAGCG 920  
| | | | |  
Db 1969 CAAGAGAGAGAGACTCGACCAAAATGGCGCAAGCTGTGTGACTTCCGCGAGCTGAACAAGCG 2028  
| | | | |  
QY 921 CAACCGAGACTTGTGGAGAGTGCAGCTGGGCAATCCCCCAACCGCGCGGCTGAAGAGAA 980  
| | | | |  
Db 2029 CAACCGAGACTTGTGGAGAGTGCAGCTGGGCAATCCCCCAACCGCGCGGCTGAAGAGAA 2088  
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QY 981 GAAGAGCGTGAACGTCGTGAGCGTGGAGCGACGCTACTTTCAGCGTGCCTGTGACGAGAA 1040  
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Db 2149 CTTCAAGAGAGTACACGCGCTTTCACATCCCTTCATCAACAGAGAACCCCGCGCATCG 2208  
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QY 1101 CTACCGTACACGTCGTGCGCGCAGAGGCTGGAAGGGCGCCAGAGATCTTTCAGAGAGCG 1160  
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Db 2269 CATGACCAAGATCTGAGAGCCTTTCGCGCAACAGAGACCCGCAATCGTATCTTATCAGTA 2328  
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QY 1218 ---GCGCCCTCTGTACGTGGGCAAGCGACTGAGATGCGCAGACCGCGCCCAAGATCGA 1274  
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QY 1335 GAGCGCCCTCTCTGTGATGGGCTACAGAGCTGACCCCGCAAGTGAACCGTGTGACGCC 1394  
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QY 1395 CATGAGCTGCGCGAGAGAGAGAGCTGAGCGTGAACGACATTCAGAAAGCTGTGGGCA 1454  
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| | | | |  
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QY 1575 GCGCGAGAACCGCGAGATCTGTGCGGAGCCGCTGTGACGCGGCTGTATCAACCCAGCA 1634  
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| | | | |  
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Db 2749 GAGCTGTATCGCGGAGATCTCAAGAGAGAGGCGAGGCGAGTGAACCTTATGATTTACCA 2808  
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QY 1695 GAGCGCTTCAAGAACCTGAGAGACCGGCAAGTACGAGATGCGCACCGCCCAACCA 1754  
| | | | |  
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QY 1755 CGAGCTGAGAGAGCTGACCGAGGCGGTGACAGAGATGCGCATGAGAGATCTGTATCTG 1814  
| | | | |  
Db 2869 CGAGCTTCAAGAGAGCTGACCGAGGCGGTGACAGAGATGACACCGAAGCATGTGTATCTG 2928  
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| | | | |  
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Db 3049 GAAGCTGTGATCTCAAGCTGAG 3108  
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QY 1995 CGGCGCGCGCAACCGGAGACCAAGATCGGCAAGCGCGCTTACGTGACGTGAG 2054  
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Db 3109 TGGGCGCGCTTACAGGAGAGACTTAAGCTGTGGCAAGCGCGATACGTCACTTAACCGGCGAG 3168  
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QY 2115 GCTGGCCCTGAGAGAGAGGCGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2174  
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QY 2175 GGGCATCATCAAGCGCGCAGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2234  
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QY 2295 CCGCAACAGAGAGATGACAGAGCTGTGTGAGCAAGGCGATTCGCAAGTGTGTTCTGTGA 2354  
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RESULT 12  
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 ; Sequence 13, Application US/09936572  
 ; Patent No. 6783981  
 ; GENERAL INFORMATION:  
 ; APPLICANT: UDEN, MARK  
 ; APPLICANT: MITROPANOUS, KYRIACOS  
 ; TITLE OF INVENTION: ANTI-VIRAL VECTORS  
 ; FILE REFERENCE: 078883/0137  
 ; CURRENT APPLICATION NUMBER: US/09/936,572  
 ; CURRENT FILING DATE: 2001-12-11  
 ; PRIOR APPLICATION NUMBER: PCT/GB00/01002  
 ; PRIOR FILING DATE: 2000-03-17  
 ; PRIOR APPLICATION NUMBER: GB 9906177.2  
 ; PRIOR FILING DATE: 1999-03-17  
 ; NUMBER OF SEQ ID NOS: 73  
 ; SOFTWARE: PatentIn Ver. 2.1  
 ; SEQ ID NO 13  
 ; LENGTH: 4353  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: pSYNG3-codon  
 ; OTHER INFORMATION: Optimised HIV-1 gagpol with leader sequence from  
 ; OTHER INFORMATION: the major splice donor  
 US-09-936-572-13

Query Match 66.0%; Score 1624.6; DB 3; Length 4353;  
 Best Local Similarity 81.8%; Pred. No. 4,56-248; Indels 19; Gaps 4;

Matches 1922; Conservative 0; Mismatches 408; Indels 19; Gaps 4;

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 1216 CAAGTCTTCAATCTGCGCAAGAGGCGCAATCGCCCGCACTGCGCGCCCGCA 1275  
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 1276 AAGGCTGCTGGAAGTGGCGCAAGAGGCGCAACGATGAAAGCATGCAACGAGCGCA 1335  
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DB 2955 GGGAAAGACTCTTAAGTTCAAGCTGCGCATTCGAGAAGAGACCTTGAGTGC 3014
QY 1875 CGACTACTGAGCAGCCAGCTGATCCCGATGAGGATTCGTAAACACCCCTGCTGCT 1934
DB 3015 AGAGTTTGGCAGGCGCACTGATTCCTGAGTGGAGTTCTGCAACACCCCTGCTGCT 3074
QY 1935 GAAGCTGTGTACCACTGAGAGAGAGAGCCCATCATCGGCGCGGAGACTTCTTCACTGTA 1994
DB 3075 GAAGCTGTGTACCACTGAGAGAGAGAGCCCATATGAGGCGCGCGAACCCTTCACTGTA 3134
QY 1995 CGGCGCCGCGCAACCGCGAGACCAAGATGCGGAGAGCCGCGCTACGTGACCGAGCGGCGG 2054
DB 3135 TGGGCGCGCTAACAGGAGAGACTGAGCTGGGCAAGCCGATACGTCACTAACCGGCGGCG 3194
QY 2055 GCAGAAAGATCTGAGCTGACCGAGACCAACCAAGAGAGCCAGCTGAGCGCATCCA 2114
DB 3195 AAGAAAGTTGTCACTCTCACTGACACCAACCAAGAGAGCTGAGCTGAGCGCATTTA 3254
QY 2115 GCTGCGCTTGCAGAGCAGCGGAGCGAGGTGAACATCTGACCGAGCGCATGACGCTT 2174
DB 3255 CTCTGCTTTGACAGACTCGGGGCTGAGGAGTGAACATCTGACAGACTCTCAAGTATGCC 3314
QY 2175 GGGCATCATCCAGCGCCAGCCGAGACCAAGAGCGAGCGAGCTGAGAACAGATCATCCA 2234
DB 3315 GGGCATCATTCAGGCCAGCCAGACCAAGAGTGAATCCAGCTGATCATACAGTCACTCA 3374
QY 2235 GCAGCTGATCAAGAGAGAGAGGTGTAACCTGAGCTGGTCCGCCCAAGAGGCGCATCCG 2294
DB 3375 GCAGCTGATCAAGAGAGAGAGAGGTGTAACCTGAGCTGGTCCGCCCAAGAGGCGCATTCG 3434
QY 2295 CGGCAACGAGCAGATGACAGAGCTGTGAGCAAGGCGCATCCGAGAGTGTCTTCTGCA 2354
DB 3435 CGGCAATGAGCAGATGACAGAGCTGTGCTCGGCTGCGCATCAGAGAGTGTCTATTCCTGCA 3494
QY 2355 CGGCAATCCA 2363
DB 3495 TGGCATCGA 3503

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## RESULT 13

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US-09-936-572-12
; Sequence 12, Application US/09936572
; Patent No. 6783981
; GENERAL INFORMATION:
; APPLICANT: UDEN, MARK
; APPLICANT: MITROPHANOUS, KYRIACOS
; TITLE OF INVENTION: ANTI-VIRAL VECTORS
; FILE REFERENCE: 078883/0137
; CURRENT APPLICATION NUMBER: US/09/936,572
; PCT FILING DATE: 2001-12-11
; PRIOR APPLICATION NUMBER: PCT/GB00/01002
; PRIOR FILING DATE: 2000-03-17
; PRIOR APPLICATION NUMBER: GB 9906177.2
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 73
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
; LENGTH: 4642
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: pSYNBP2-codon
; OTHER INFORMATION: optimised HIV-1 gagpol with leader sequence
US-09-936-572-12

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Query Match

66.0%; Score 1624.6; DB 3; Length 4642;

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Best Local Similarity 81.8%; Pred. No. 4,5e-248;
Matches 1922; Conservative 0; Mismatches 408; Indels 19; Gaps 4;
QY 33 GGGCCACAGCGCCCAACATCTCTGATGACGCGAGAGCACTTCAAGGGCCCCCAAGCGCATCAT 92
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QY 93 CAAGCTTCAACTGCGCGCAAGAGGCGCACATGCGCCGCAACTGCGCGCCCCCGCA 152
DB 1505 CAAGTCTTCAACTGTGGCAAGAGAGGCGCACAGCCCGCAACTGCGAGCCCTTAGGA 1564
QY 153 GAAGGCTGCTGAGAGTGCAGGAGAGGCGCACAGATGAGAGACTGACACCGAGCGCA 212
DB 1555 AAGGGCTGTGGAAATGTGGAAAGAGAGACACCAATGAAAGATTGACTGAGAGACA 1624
QY 213 GGGCAACTTTCTTCCGCGAGACCTGCGCTTCCCGAGGCGCAAGGCCGCGAGTTCCCA 272
DB 1625 GGGCTAA-TTTTGTAGGGAAAGATCTGGCCCTTCCCAAGGGAAGGCGAGGAAATTTTCTTC 1683
QY 273 CGAGGAGAAACCGCGCCACAGCGCCCAAGCGCGAGCTGACAGTGCAGG-----CGA 326
DB 1684 AAGGCAAGACAGAGCTCAAGCTCCACCAAGAGAGAGCTTCAAGTTTGGGGAAGAGACA 1743
QY 327 CAACCCCGCAGCGAGCGCGCGCGCGAGCGCGCAAGGCA-----CCTGAATTTTCCCA 380
DB 1744 CAACCTCCTTCAAGAGAGAGAGCGCGCATGACCAAGAACTGTATCTTTAGCTTCCCTCA 1803
QY 381 GATCACTCTGTGAGCAGCGCCCTCTGTGATGATCAAGGTGGCGGCGCATCAAGAGGC 440
DB 1804 GATCACTCTTTGGCAGCAGCCCTCTGTGATGATGAGGTGGCGGCGCATCAAGAGGC 1863
QY 441 CCTGTGAGACACCGCGCGCGAGACACCGTGTGAGAGAGATGAGCTGCGCGCGCAAGT 500
DB 1864 TCTCTGAGACACCGAGAGAGAGACCGTGTGAGAGAGATGAGTGTGCGCGCGCTG 1923
QY 501 GAAGCCCAAGATGATCGCGCGCATCGCGGCTTTCATCAAGGTGCGCGCATGACAGCAT 560
DB 1924 GAAGCCCAAGATGATCGCGCGCATCGCGGATGAGGTGTTTCAAGGTGCGCGCATGACAGAT 1983
QY 561 CCTGTGAGATCTGCGCGAGAGAGCGCATCGCGACCGTGTGATGAGTGGCGCGCGCT 620
DB 1984 CCTGTGAGAAATCTGCGCGCACAGGCGTATCGGTACCGTGTGAGTGGCGCGCGCACCGCT 2043
QY 621 GAACATCATCGCGCGCGCATCTGATCCAGCTGGCGCGCATCTGAACTTCCCATCG 680
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QY 681 CCCATTCGAGACGAGCGCGGTGAGCTGAAGCCCGCATGAGCGCGCGCAAGGTGAGGA 740
DB 2104 CCTTATCGAGCGGTACCGGTGAAGCTGAAGCCCGGATGAGCGCGCGCAAGGTCAAGCA 2163
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QY 801 GGAAGGCAAGATCAACCAATGAGCGCGCGCAAGCCCTTCAACACCCCGTGTGGCCAT 860
DB 2224 GGAAGGCAAAATCTCCAAATGAGGCTGAGAACCGGTACCAACACCGCGTGTTCAT 2283
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DB 2284 CAAGAGAGAGAGCTGACCAAAATGCGGCAAGCTGTGAGACTTCCGGAAGCTGAACAAGG 2343
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QY 981 GAAGAGCTGACCGTCTGAGAGTGGCGAGCGCTTACTCAAGCGTCCCTGAGAGAG 1040
DB 2404 GAATTCGAGACCGTACTGAGTGGTGTATGCTTCTCCGTTCCTTGGACAGAA 2463
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Db 2464 CTTGACGAGATGACCTGCTTCAACATCCCTTCATCAACACGAGACACCGGGGATTG 2523  
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 Qy 1161 CATGACCAAGATCTGTGAGCCCTTCCGCGCCCGCAACCCCGAGATGATCTACCA-- 1217  
 Db 2584 CATGACCAAAATCTGTGAGCCCTTCCGCAACAGAACCCCGACATCTGATCTACAGTA 2643  
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 Db 3544 CCGCTTGTGAG 3603

Qy 2175 GAGGATCATCCAGGCGCCAGCCCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2234  
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 Qy 2235 GAGAGTATCAAG 2294  
 Db 3664 GAGAGTATCAAG 3723  
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 Qy 2355 GAGGATCGA 2363  
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 RESULT 14  
 US-09-552-950-5  
 ; Sequence 5, Application US/09552950  
 ; Patent No. 6541248  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Oxford Biomedica (UK) Limited  
 ; TITLE OF INVENTION: Anti-Viral Vectors  
 ; FILE REFERENCE: 674524-2004  
 ; CURRENT APPLICATION NUMBER: US/09/552,950  
 ; CURRENT FILING DATE: 2000-04-20  
 ; NUMBER OF SEQ ID NOS: 22  
 ; SOFTWARE: Patent In Ver. 2.1  
 ; SEQ ID NO 5  
 ; LENGTH: 9772  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: pSYNGP  
 US-09-552-950-5  
 Query Match 66.0%; Score 1624.6; DB 3; Length 9772;  
 Best Local Similarity 81.8%; Pred. No. 4.7e-248;  
 Matches 1922; Conservative 0; Mismatches 408; Indels 19; Gaps 4;  
 Qy 33 GAGCAGAGCGCAACATCTGTATGACAGCGCAACTTCAAGGCGCCCAAGCGCATCAT 92  
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 Qy 441 CTGCTGTGAG 500  
 Db 2636 TCTCTGTGAG 2695

QY 501 GAAGCCCAAGATGATCGGCGGCGCTTCAATCAAGTGGCCAGATCAACCAAT 560  
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 DB 4076 GGAAGCTGTGAGAACCTGAGAGACCGGAGAGTGTGAGAGTGTGAGAGTGTGAGAG 4135  
 QY 1935 GGAAGCTGTGAGAACCTGAGAGACCGGAGAGTGTGAGAGTGTGAGAGTGTGAGAG 1994  
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 DB 4496 GGAAGCTGTGAGAACCTGAGAGACCGGAGAGTGTGAGAGTGTGAGAGTGTGAGAG 4555  
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RESULT 15  
 US-09-610-313b-31  
 ; Sequence 6, Application US/09872733A  
 ; Patent No. 6658706  
 ; GENERAL INFORMATION:  
 ; APPLICANT: The Government of the United States of America, as  
 ; TITLE OF INVENTION: MOLECULAR CLONES WITH MUTATED HIV GAG/POL, SIV GAG AND  
 ; TITLE OF INVENTION: SIV ENV GENES  
 ; FILE REFERENCE: 2026-4287JUS1 HIV GAG/POL, SIV GAG & ENV  
 ; CURRENT APPLICATION NUMBER: US/09/872,733A  
 ; PRIOR FILING DATE: 2001-06-01  
 ; PRIOR APPLICATION NUMBER: PCT/US00/34985  
 ; PRIOR FILING DATE: 2000-12-22  
 ; PRIOR APPLICATION NUMBER: 60/173,036  
 ; PRIOR FILING DATE: 1999-12-23  
 ; NUMBER OF SEQ ID NOS: 19

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; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
; LENGTH: 8366
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: Description of Artificial Sequence: DNA sequence
; OTHER INFORMATION: of the construct pCMVgaspol1BHKan containing a CMV
; OTHER INFORMATION: promoter, a HIV gag/pol gene and a kanamycin
; US-09-872-733A-6

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Query Match      63.6%; Score 1566; DB 3; Length 8366;
Best Local Similarity 80.2%; Pred. No. 8.4e-239;
Matches 1885; Conservative 0; Mismatches 446; Indels 19; Gaps 4;

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Qy 33 GGGCCACGAGCCGCAATCTGTATGACGGCAGCACTTTCAGAGGCCCGCCAGCGCATAT 92
Db 1879 GACGAACTCGGCGACCATTAATGATGACAGAGGCAACTTCGGAACCGAGAGATCGT 1938
Qy 93 CAAGTGTCTTCAACTGCGGCAAGAGGGCCACATCGCCGCAACTGCGCGGCCCGCCGCA 152
Db 1939 CAAGTGTCTTCAATTTGTGCAAGAGAGGCAACCGCCAGAACTGCGGGCCCGGAA 1998
Qy 153 GAAGGGCTGTGAAGTGCAGGCAAGAGAGGCAACCAATGAAGAATGACCGAGCCCA 212
Db 1999 GAAGGGCTGTGAAGTGTGAAGAGAGAGCAACCAATGAAGAATTTGTACTGAGAGCA 2058
Qy 213 GGGCAACTTCTTCCGCGAGACCTGCTTCCCGCAGGGCAAGGCCGCGAGTTCCCGAG 272
Db 2059 GGGCTAA-TTTTTTTAAAGGAAGATCTGGCTCTCTCAAGAGAAAGCCAGAGAAATTTTCTTC 2117
Qy 273 CGAGAGAAACCGCGCAACAGCCCAACGAGCGGAGTGCAGGTCGCGG-----CGA 326
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Qy 381 GATCACTCTGTGCGAGCGCCCTCTGTGTAGATCAAGTGGCGGCCCGCCAGATCAAGAGGC 440
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Db 2538 CCTATTATGAGACGGTGCCTGTGAAGTTGAAGCCGGAGTGAACCGGCCCAAGGTGAACA 2597
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Db 2658 GAAGGCAAGATCAACAGATCGGCGCTGAGAAACCCCTACAAACCTCCAGCTTTCGCAT 2717
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Db 2718 CAAGAGAAAGACAGTACCAAGTGAAGAAAGCTGTGACTTTCAGAGGCTGAACAAGAG 2777
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Qy 1395 CATGAGCTGCGGAGAGAGAGAGAGCTGACCTGTGAAGACATCCAGAACTGTGGGCAA 1454
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Db 3378 TCGAGAGAACCAAGGCACTGACAGAAAGTATCTCCATGACAGAGAGAGAGAGCTTGAAGACT 3437
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Qy 1815 GGGGAGAACCCCGCAAGTTCCGCGCTCCCATTCACAAAGAGACCTGGGAGACCTGTGTGAC 1874
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Db 4038 GGGCATCATCCAGGACCAACCAAGCAATCCGAGTCAAGAGCTGTGAACCAAGATCATCGA 4097
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Db 4098 GCAAGCTGATCAAGAGAGAGAGGTGTACTGTAGCTGGGTGCCGCCCAAGAGGCAATCGG 4157
QY 2295 CGGCAACGAGCATCGACAGCTGTGAGCAAGGCAATCCGCAAGTGTCTCTGGA 2354
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QY 2355 CGGCATCGAT 2364
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GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 30, 2005, 07:51:44 ; Search time 1726 Seconds  
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Title: US-09-610-313B-31

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Scoring table: IDENTITY NUC  
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Searched: 9793542 seqs, 4134689005 residues

Total number of hits satisfying chosen parameters: 19587084

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Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
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Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARYS

Result No.	Score	Query Match	Length	DB ID	Description
1	2463	100.0	2463	3	US-09-899-575-31 Sequence 31, Appl
2	2455.4	99.7	2457	6	US-10-190-435-44 Sequence 44, Appl
3	2455.4	99.7	2457	6	US-10-190-305A-38 Sequence 38, Appl
4	2442.2	99.2	2469	3	US-09-899-575-30 Sequence 30, Appl
5	2436.2	98.9	2457	3	US-09-899-575-32 Sequence 32, Appl
6	2430.2	98.7	2457	6	US-10-190-435-45 Sequence 45, Appl
7	2430.2	98.7	2457	6	US-10-190-305A-39 Sequence 39, Appl
8	2422.6	98.4	2445	6	US-10-190-435-43 Sequence 43, Appl
9	2422.6	98.4	2445	6	US-10-190-305A-37 Sequence 37, Appl
10	2415.6	98.1	3930	6	US-10-190-435-9 Sequence 9, Appl
11	2414	98.0	3930	6	US-10-190-435-10 Sequence 10, Appl
12	2414	98.0	3930	6	US-10-190-435-11 Sequence 11, Appl
13	2414	98.0	5184	6	US-10-190-435-58 Sequence 58, Appl
14	2414	98.0	5184	6	US-10-190-305A-82 Sequence 82, Appl
15	2383.6	96.8	3531	6	US-10-190-435-13 Sequence 13, Appl
16	2382	96.7	3537	6	US-10-190-435-14 Sequence 14, Appl
17	2382	96.7	3537	6	US-10-190-435-15 Sequence 15, Appl
18	2381	96.7	5145	6	US-10-190-435-12 Sequence 12, Appl
19	2381	96.7	5145	6	US-10-190-305A-12 Sequence 12, Appl
20	2322.6	94.3	3607	6	US-10-190-435-48 Sequence 48, Appl
21	2322.6	94.3	3607	6	US-10-190-305A-42 Sequence 42, Appl
22	2322.6	94.3	3624	6	US-10-190-435-47 Sequence 47, Appl
23	2322.6	94.3	3624	6	US-10-190-305A-41 Sequence 41, Appl

24	2304.4	93.6	3597	6	US-10-190-435-46 Sequence 46, Appl
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26	2142	87.0	2466	6	US-10-241-009-31 Sequence 31, Appl
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40	2114.2	85.8	3564	6	US-10-190-434B-13 Sequence 13, Appl
41	2114.2	85.8	3564	6	US-10-190-619-13 Sequence 13, Appl
42	2114.2	85.8	3564	9	US-10-976-619-13 Sequence 13, Appl
43	2114.2	85.8	4716	6	US-10-190-435-17 Sequence 17, Appl
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## ALIGNMENTS

RESULT 1  
US-09-899-575-31  
Sequence 31, Application US/0989575  
Publication No. US20030223961A1  
GENERAL INFORMATION:  
APPLICANT: Zur Megede, Jan  
APPLICANT: Barnett, Susan W.  
APPLICANT: Egnelbrecht, Susan  
APPLICANT: van Rensburg, Estrelita Janse  
TITLE OF INVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C  
TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
FILE REFERENCE: P01631.102  
CURRENT APPLICATION NUMBER: US/09/899,575  
CURRENT FILING DATE: 2001-07-05  
PRIOR APPLICATION NUMBER: 09/475,704  
PRIOR FILING DATE: 1998-12-30  
NUMBER OF SEQ ID NOS: 135  
SOFTWARE: Patencin Ver. 2.0  
SEQ ID NO 31  
LENGTH: 2463  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: PR975YM  
US-09-899-575-31

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DB	61	CGAGCACTTCAAGGGCCCAAGCCATCATTAATGCTTCAACTGCGGCAAGAGGGC	120
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DB	121	CACATGCGCCGCAACTGCGCGCCCGGCAAGAGAGGCTGTGAAGTCCGCAAGAG	180
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; Publication No. US20030143248A1  
; GENERAL INFORMATION:  
; APPLICANT: ZUR MEGEDE, Jan  
; APPLICANT: BARRETT, Susan W.  
; APPLICANT: LIAN, Ying  
; APPLICANT: ENGELBRECHT, Susan  
; APPLICANT: VAN RENSBURG, Estrelita J.  
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
; FILE REFERENCE: P18133.003 / 2302-18133  
; CURRENT APPLICATION NUMBER: US/10190,435  
; CURRENT FILING DATE: 2002-12-30  
; NUMBER OF SEQ ID NOS: 319  
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; SEQ ID NO 44  
; LENGTH: 2457  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: p2Polopt.YM\_C  
US-10-190-435-44

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Db 421 GGGGCGCAAGTCAAGAGGCGCGCTGTGAGCAACCGCGCGCGCAACCGGTGTGAGAG 480

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Db 841 AACACCCCGGTGTTGGCATCAAGAGAGGACAGACCAAGTGGCGCAAGCTGTGTGAC 900

Qy 901 TTCCGCGAGCTGAACAAGGCAACCGAGACTTCTGAGAGTGCAGCTGGGCAATCCGCCAC 960  
Db 901 TTCCGCGAGCTGAACAAGGCAACCGAGACTTCTGAGAGTGCAGCTGGGCAATCCGCCAC 960

Qy 961 CCCGCGCGCTGAAGAGAGAGAGCGTGAACCGTGTGAGAGTGGCGCAAGCGCTTACTTC 1020  
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Qy 1021 ACCGTGCGCTGGAAGAGAGACTTCCGCAAGTCAACCGGCTTCAACATCCCGCATCAAC 1080  
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Qy 1081 AACGAGACCCCGCGCATCCGCTACAGTCAACAGTGTCTCCGAGGGCTGAAAGGCGACG 1140  
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Qy 1141 CCCAGCATCTTCAAGAGAGAGATGACCAAGATCTGAGAGCCCTTCCGCGCGCGCAACCCC 1200  
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Qy 1201 GAGATGTGATCTCAAGAGCGCGCGCTGTACAGTGGAGAGGACCTGAGAGTGGCGAGAC 1260  
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Qy 1261 CGGCGCAAGTGAAGAGGCTGCGCAAGCACTGTGCGCTGGGGCTTCAACACCCCGAC 1320  
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Qy 1321 AAGAGACCAAGAGAGAGCGCCCTTCTGTGATGAGGCTACAGCTGCAACCCCGACAG 1380  
Db 1321 AAGAGACCAAGAGAGAGCGCCCTTCTGTGATGAGGCTACAGCTGCAACCCCGACAG 1380

Qy 1381 TGAACCTGTGAGCCATTCAGCTGCGCGAGAGAGAGAGTGTGACCGTGAACCATTCAG 1440  
Db 1381 TGAACCTGTGAGCCATTCAGCTGCGCGAGAGAGAGAGTGTGACCGTGAACCATTCAG 1440

Qy 1441 AACCTGTGAGGCAAGCTGAACTGGGCGAGCAGATCTAACCCCGGCAATCAAGTGGCGAG 1500  
Db 1441 AACCTGTGAGGCAAGCTGAACTGGGCGAGCAGATCTAACCCCGGCAATCAAGTGGCGAG 1500

Qy 1501 CTGTGCAAGTGTGTGGCGCGCGCAAGCGCTGACCAAGCATCTGTGCGCCCTGACCGAGAG 1560  
Db 1501 CTGTGCAAGTGTGTGGCGCGCGCAAGCGCTGACCAAGCATCTGTGCGCCCTGACCGAGAG 1560

Qy 1561 GCGGAGCTGAGAGTGTGGCGCGAGAACCGCGAGATCTGTGCGAGGCGCGGTGAC 1620  
Db 1561 GCGGAGCTGAGAGTGTGGCGCGAGAACCGCGAGATCTGTGCGAGGCGCGGTGAC 1620

Qy 1621 TACGACCCCAAGAGAGCTGTGTGCGAGATCCAGAGAGGCGCAACGACGATGAGACC 1680

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Db 1621 TACGACCCGACGAGCCTGTGCGCCGAGATCCAGAAAGAGGCGCACGACCACTGAC 1680
Qy 1681 TACGACATCTACGAGAGCCCTTCAAGAACTGAAGACCGGAGAGTAGCCAAATGCGC 1740
Db 1681 TACGACATCTACGAGAGCCCTTCAAGAACTGAAGACCGGAGAGTAGCCAAATGCGC 1740
Qy 1741 ACCGCCACACCAACGAGCTGAGAGCAAGCTGACCGAGCCGTGACAGAAATGCGCAG 1800
Db 1741 ACCGCCACACCAACGAGCTGAGAGCAAGCTGACCGAGCCGTGACAGAAATGCGCAG 1800
Qy 1801 AGCATCTGATCTGGGGGCAAGACCCCAAGTTCCGCTCCCATCTCAAGAGAGCCTGG 1860
Db 1801 AGCATCTGATCTGGGGGCAAGACCCCAAGTTCCGCTCCCATCTCAAGAGAGCCTGG 1860
Qy 1861 GAGACCTGTGAGCCGACTACTGACGAGCCACCTGATCCCGAGTGGAGTTCTGTAG 1920
Db 1861 GAGACCTGTGAGCCGACTACTGACGAGCCACCTGATCCCGAGTGGAGTTCTGTAG 1920
Qy 1921 ACCCCCCCTGTGTAGCTGTGTGTACGAGCTGAGAGAGAGCCCATCATCGCCCGAG 1980
Db 1921 ACCCCCCCTGTGTAGCTGTGTGTGTACGAGCTGAGAGAGAGCCCATCATCGCCCGAG 1980
Qy 1981 ACCTTCTACGTGAGAGCGGCGCCCAACCGGAGACCAAGATCGGCAAGCGCGTACGTG 2040
Db 1981 ACCTTCTACGTGAGAGCGGCGCCCAACCGGAGACCAAGATCGGCAAGCGCGTACGTG 2040
Qy 2041 ACCGACCGGGGCGGACAGAGATCGTGAAGCTGACCGAGACCAACCAAGAGACGAG 2100
Db 2041 ACCGACCGGGGCGGACAGAGATCGTGAAGCTGACCGAGACCAACCAAGAGACGAG 2100
Qy 2101 CTGCAAGGCATTCAGCTGCGCCCTGACAGACAGCGGACGAGGTAAATCGTGAACGAC 2160
Db 2101 CTGCAAGGCATTCAGCTGCGCCCTGACAGACAGCGGACGAGGTAAATCGTGAACGAC 2160
Qy 2161 AGCCAGTACGCTCTGAGCATCTCCAGGCGCCAGCCCAAGAGAGAGAGCGAGCTGTG 2220
Db 2161 AGCCAGTACGCTCTGAGCATCTCCAGGCGCCAGCCCAAGAGAGAGAGCGAGCTGTG 2220
Qy 2221 AACGAGATCATGAGCAGCTGATCAAGAGAGAGAGGTGTACTGAGCTGGGTGCGCGC 2280
Db 2221 AACGAGATCATGAGCAGCTGATCAAGAGAGAGAGGTGTACTGAGCTGGGTGCGCGC 2280
Qy 2281 CACAAGGCGATCGGCGGACAGAGACGATCGACAGAGCTGTGAGAGAGAGCTCCGAC 2340
Db 2281 CACAAGGCGATCGGCGGACAGAGACGATCGACAGAGCTGTGAGAGAGAGCTCCGAC 2340
Qy 2341 GTGCTGTCTGTGAGCAGCATGATGAGCGGATCGTGTACTACAGTACATGAGCAGCTG 2400
Db 2341 GTGCTGTCTGTGAGCAGCATGATGAGCGGATCGTGTACTACAGTACATGAGCAGCTG 2400
Qy 2401 TACGTGGGACGAGCGGCGCTTGAAGTAAAGCTTCCCGGGCTTAAAGACCGGT 2457
Db 2401 TACGTGGGACGAGCGGCGCTTGAAGTAAAGCTTCCCGGGCTTAAAGACCGGT 2457

RESULT 3
US-10-190-305A-38
; Sequence 38, Application US/10190305A
; Publication No. US20030198621A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan
; APPLICANT: LIAN, Ying
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
; FILE REFERENCE: 2302-18702 / 18702.002
; CURRENT APPLICATION NUMBER: US/10/190,305A
; NUMBER OF SEQ ID NOS: 93
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 38
; LENGTH: 2457
; TYPE: DNA
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; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: p2polopt.YM_C
US-10-190-305A-38

Query Match      99.74; Score 2455.4; DB 6; Length 2457;
Best Local Similarity 100.00; Pred. No. 0;
Matches 2456; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 GTGACCGCACCATGAGCGCCATGAGCCAGGCGCACAGCGCAACATCTTATGTCAG 60
Db 1 GTGACCGCACCATGAGCGCCATGAGCCAGGCGCACAGCGCAACATCTTATGTCAG 60
Qy 61 CGAGCAACTTCAAGGGGCGCCAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGGC 120
Db 61 CGAGCAACTTCAAGGGGCGCCAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGGC 120
Qy 121 CACATCGCCCGCAACTGCGCGCCCGCCCGCAAGAAAGGCTGCTGGAAGTGGCAAGAG 180
Db 121 CACATCGCCCGCAACTGCGCGCCCGCCCGCAAGAAAGGCTGCTGGAAGTGGCAAGAG 180
Qy 181 GGCACCAAGATGAAGACTGACCGAGCGCCAGGCTTCCGCGAGAGACCTGCGC 240
Db 181 GGCACCAAGATGAAGACTGACCGAGCGCCAGGCTTCCGCGAGAGACCTGCGC 240
Qy 241 TTCCCCCAAGGCAAGGCGCGGAGTCCCGACGAGCAAGAACCGGCGCAAGCGCCAC 300
Db 241 TTCCCCCAAGGCAAGGCGCGGAGTCCCGACGAGCAAGAACCGGCGCAAGCGCCAC 300
Qy 301 AGCGCGAGCTGCAAGTGTGCGCGGCAACCTCCGCAAGGCGCGCGCGGCGGAG 360
Db 301 AGCGCGAGCTGCAAGTGTGCGCGGCAACCTCCGCAAGGCGCGCGCGGCGGAG 360
Qy 361 GGCACCCCTGAACCTTCCCGCAATCACTGTGTGAGAGGCGCCCTGTGAGGATCAAG 420
Db 361 GGCACCCCTGAACCTTCCCGCAATCACTGTGTGAGAGGCGCCCTGTGAGGATCAAG 420
Qy 421 GCGCGCGAGATCAAGAGGCGCTGCTGGAACAGCGCGCGCAACACCGCTGTAAGAG 480
Db 421 GCGCGCGAGATCAAGAGGCGCTGCTGGAACAGCGCGCGCAACACCGCTGTAAGAG 480
Qy 481 ATGAGCTGTCCCGCAAGTGAAGCCCAAGATGTGCGGCGCATCGCGCTTATCAAG 540
Db 481 ATGAGCTGTCCCGCAAGTGAAGCCCAAGATGTGCGGCGCATCGCGCTTATCAAG 540
Qy 541 GTGCGCGAGTACAGACAGATCTGTATGAGATCTTGGCGCAAGAGCCATGGGACCG 600
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Qy 601 CTGATCGGCGCCACCGCGTGAACATCATCGAGCGCAACATGTGACCCAGCTGGCTGC 660
Db 601 CTGATCGGCGCCACCGCGTGAACATCATCGAGCGCAACATGTGACCCAGCTGGCTGC 660
Qy 661 ACCCTGAACCTTCCCATCAGCCCATGAGACCGTGTGCGGAGCTGGAAGCCGGCATG 720
Db 661 ACCCTGAACCTTCCCATCAGCCCATGAGACCGTGTGCGGAGCTGGAAGCCGGCATG 720
Qy 721 GAGCGCCCGAAGGTGAAGCAAGTGGCCCTTGACCGAGAGAAAGATCAAGGCTTACG 780
Db 721 GAGCGCCCGAAGGTGAAGCAAGTGGCCCTTGACCGAGAGAAAGATCAAGGCTTACG 780
Qy 781 ATCTGCGAGAGATGAGAGAGAGGCAAGATCAAGAGATCGGCGCCCGAGAACCCCTAC 840
Db 781 ATCTGCGAGAGATGAGAGAGAGGCAAGATCAAGAGATCGGCGCCCGAGAACCCCTAC 840
Qy 841 AACACCCCGTGTTCGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900
Db 841 AACACCCCGTGTTCGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900
Qy 901 TTCCGCGAGCTGAACAGGCGCACCGAGACTTCTGTGAGAGGTGCAAGCTGAGCATCC 960
Db 901 TTCCGCGAGCTGAACAGGCGCACCGAGACTTCTGTGAGAGGTGCAAGCTGAGCATCC 960
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OY	961	CCGCGCGGCGCTGAAAGAAAGAAAGAGCGTGAACCGTCTGGAAGTGGGCGACGCTTACTTC	1020
Db	961	CCCGCTCGGCGCTGAAAGAAAGAAAGAGGTGAACGTGTCTGGAAGTGGGCGACGCTTACTTC	1020
OY	1021	AGCGTGGCCCTGGAAGCGAGCACTTCCGCAATGACACGCGCTTCAACATCCCGACATCAAC	1080
Db	1021	AGCGTGGCCCTTGGACGAGCACTTCCGCAATGACACCGCGCTTCAACATCCCGACATCAAC	1080
OY	1081	AAACGAGACCCCCCGGCATCCGCTACCAAGTACAAAGTGTGCTGCCAGGGCTGGAAGGGCAGC	1140
Db	1081	AAACGAGACCCCCCGGCATCCGCTACCAAGTACAAAGTGTGCTGCCAGGGCTGGAAGGGCAGC	1140
OY	1141	CCCGAGCATTTTCCAGACAGACAGTACCAAAATCTGGAGGCCCTTCCGCGCCGCGCAACCCC	1200
Db	1141	CCCGAGCATTTTCCAGACAGACAGTACCAAAATCTGGAGGCCCTTCCGCGCCGCGCAACCCC	1200
OY	1201	GAGATCTGATCTACAGAGCCCCCTCTGACGTGGGCGACGACCTTGAAGATCCGCGCAAC	1260
Db	1201	GAGATCTGATCTACAGAGCCCCCTCTGACGTGGGCGACGACCTTGAAGATCCGCGCGAC	1260
OY	1261	CGCGCCAAAGATCGAGAGCTTGCGCAAGCACCTGTGCGCTGGGGCTTCAACACCCCGAC	1320
Db	1261	CGCGCCAAAGATCGAGAGCTTGCGCAAGCACCTGTGCGCTGGGGCTTCAACACCCCGAC	1320
OY	1321	AAAGAAACCCAGAAAGAGACCCCCCTTCTGTGTGTATGGGCTTACAGAGCTGACCCCCGACAG	1380
Db	1321	AAAGAAACCCAGAAAGAGACCCCCCTTCTGTGTGTATGGGCTTACAGAGCTGACCCCCGACAG	1380
OY	1381	TGGAACCGTGCAGGCCCATTCAGCTTGCCTCGAAGAGAGAGCTGGAACCGTGAACGACATTCAG	1440
Db	1381	TGGAACCGTGCAGGCCCATTCAGCTTGCCTCGAAGAGAGAGCTGGAACCGTGAACGACATTCAG	1440
OY	1441	AAAGCTGTGGGCAAGCTGAACCTGGGCGACCGCAATCTACCCCGCATCAAGGTGCGCAG	1500
Db	1441	AAAGCTGTGGGCAAGCTGAACCTGGGCGACCGCAATCTACCCCGCATCAAGGTGCGCAG	1500
OY	1501	CTGTGCAAGCTGTCTGCGCGCGGCCCAAGGCCCTTGAACGACATCTGTGCCCTGAACCGAGAG	1560
Db	1501	CTGTGCAAGCTGTCTGCGCGCGGCCCAAGGCCCTTGAACGACATCTGTGCCCTGAACCGAGAG	1560
OY	1561	GCCGAGCTGGAAGCTGGCGCGAGAACCGGAGATCTTGGCGCGAGCCCGTGCACGCGGTATAC	1620
Db	1561	GCCGAGCTGGAAGCTGGCGCGAGAACCGGAGATCTTGGCGCGAGCCCGTGCACGCGGTATAC	1620
OY	1621	TACGACCCCGACAGAGACCTGTGTGGCGCGAGATCCAGAACGAGGGCGACACAGTGGACC	1680
Db	1621	TACGACCCCGACAGAGACCTGTGTGGCGCGAGATCCAGAACGAGGGCGACACAGTGGACC	1680
OY	1681	TACCAAGATCTACAGAGGCCCTTCAAGAACCTGGAAGACCGGCAAGTACGCCAGATATCGC	1740
Db	1681	TACCAAGATCTACAGAGGCCCTTCAAGAACCTGGAAGACCGGCAAGTACGCCAGATATCGC	1740
OY	1741	ACCGGCCCAACCAAGAGGTGAAGAGCTGAACCGAGGCGGTGCAGAAAGATGCGCATGAGAG	1800
Db	1741	ACCGGCCCAACCAAGAGGTGAAGAGCTGAACCGAGGCGGTGCAGAAAGATGCGCATGAGAG	1800
OY	1801	AGCATCTGATCTGGGGGCAAGACCCCAAGTTCCGCTGCGCATTCAGAAAGAGACTTGG	1860
Db	1801	AGCATCTGATCTGGGGGCAAGACCCCAAGTTCCGCTGCGCATTCAGAAAGAGACTTGG	1860
OY	1861	GAGACCTGTGTCAGCGACTGACGAGGACCACTGAGATCCCGAGTGGGAATTTGTATAC	1920
Db	1861	GAGACCTGTGTCAGCGACTGACGAGGACCACTGAGATCCCGAGTGGGAATTTGTATAC	1920
OY	1921	ACCGCCCGCGCTGTGAAGCTGTGTATACAGCTGGAAGAGGCCATATCTGGGCGCGAG	1980
Db	1921	ACCGCCCGCGCTGTGAAGCTGTGTATACAGCTGGAAGAGGCCATATCTGGGCGCGAG	1980
OY	1981	ACCTTCTACGTGAGCGGCGCGCCCAACCGCGAGCAAGATCTGGCAAGGCGGCTACGTCG	2040
Db	1981	ACCTTCTACGTGAGCGGCGCGCCCAACCGCGAGCAAGATCTGGCAAGGCGGCTACGTCG	2040
OY	2041	ACCGACCGGGGCGCGCGAGATCTGTGAAGCTTGACCCGAGCAACCAACCAAGAACCGAG	2100

Db	2041	ACCAACCGGGCCGGCGAAGATGTGAGCTGACCCAGACACACCAACGAGAACCGAG	2100
Qy	2101	CTGCAGGCCCATTCACAGCTGCGCTTCAGAGACAGCGCGACGAGGTGAACATCGTGAACCGAC	2160
Db	2101	CTGCAGGCCCATTCACAGCTGCGCTTCAGAGACAGCGCGACGAGGTGAACATCGTGAACCGAC	2160
Qy	2161	AGCCAGTACCGCTCTGGGCGATCATCCAGGCCACGCCCAACAGCGAGCGAGCTGGT	2220
Db	2161	AGCCAGTACCGCTCTGGGCGATCATCCAGGCCACGCCCAACAGCGAGCGAGCTGGT	2220
Qy	2221	AACCAGATCATTCGAGCAGCTGATCAAGAAAGAAAGGTGACCTGACCTGGTGGCCCGCC	2280
Db	2221	AACCAGATCATTCGAGCAGCTGATCAAGAAAGAAAGGTGACCTGACCTGGTGGCCCGCC	2280
Qy	2281	CACAAAGGCGATCGCGCGGCAACGACAGATCGACGAAGCTGGTGAACAAAGGCATCCGCAAG	2340
Db	2281	CACAAAGGCGATCGCGCGGCAACGACAGATCGACGAAGCTGGTGAACAAAGGCATCCGCAAG	2340
Qy	2341	GTGCGTGTCTTGGAGACGGGCATCGATGGCGGCATCTGTGATCTTACAGTACATGGAAGCACTGT	2400
Db	2341	GTGCGTGTCTTGGAGACGGGCATCGATGGCGGCATCTGTGATCTTACAGTACATGGAAGCACTGT	2400
Qy	2401	TACGTGGCGACGGCGGCGCTTAGATCGATTAAAGCTTCCCGGCGCTAGCACCGGT	2457
Db	2401	TACGTGGCGACGGCGGCGCTTAGATCGATTAAAGCTTCCCGGCGCTAGCACCGGT	2457

RESULT 4  
US-09-899-575-30

; Sequence 30, Application US/09899575  
; Publication No. US20030223961A1

**GENERAL INFORMATION:**

APPLICANT: zur Megeade, Jan

APPLICANT: bairnell, susan

APPLICANT: van Bensburg,

TITLE OF INVENTION: POLYNU

TITLE OF INVENTION: POLYP

FILE REFERENCE: PP01631.10

CURRENT APPLICATION NUMBER

CURRENT FILING DATE: 2001

PRIOR APPLICATION NUMBER: 1999-13

NUMBER OF SEN TD NOS: 135  
ERICK FILING DATE: 1999-12-11

SOFTWARE: PatentIN Ver. 2.0

SEO ID NO 30

LENGTH: 2469

TYPE: DNA

**ORGANISM:** Artificial Sequ

FEATURE: Description

OTHER INFORMATION: DESCRIBE

US-09-699-275-30

Query Match 99 -

Best Local Similarity 99.

Matches 2460; Conservative

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QY 1 GTCGACGCCACCAATC

[illegible]

DB T G I C B A C C U N C H A S

61 CGCAGCAACTTCAAC

Db 61 CGCAGCACTTCAAC

.....

QY 121 CACATCGCCCGCAAC

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1

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181 GGGCACCAGATGAAAC

100

Db 181 GGCCACCAGATGAAC

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Db 241 TTCCCCGAGGCAAGGCCCGGAGTTCCCGAGGAGCAAGCCGCGCAACAGCCCAACC 300  
QY 301 AGCGCGAGCTGCAAGGTGCGCGGCAACACCCCGGAGGCGCGGCGGAGGCGGCAAG 360  
Db 301 AGCGCGAGCTGCAAGGTGCGCGGCAACACCCCGGAGGCGCGGCGGAGGCGGCAAG 360  
QY 361 GGCAACCGGAACCTTCCCGAGATCACTGTGAGGAGCGCCCTGTGTAGAGATCAAGGTG 420  
Db 361 GGCAACCGGAACCTTCCCGAGATCACTGTGAGGAGCGCCCTGTGTAGAGATCAAGGTG 420  
QY 421 GCGCGGAGATCAAGAGGCGCTGTGACAACCGCGCGGAGCAACCGGTCTGAGAGAG 480  
Db 421 GCGCGGAGATCAAGAGGCGCTGTGACAACCGCGCGGAGCAACCGGTCTGAGAGAG 480  
QY 481 ATGAGCTGCGCGGAGAGTGAAGCCCAAGATGATCGCGGAGATCGCGGCTTCAACAG 540  
Db 481 ATGAGCTGCGCGGAGAGTGAAGCCCAAGATGATCGCGGAGATCGCGGCTTCAACAG 540  
QY 541 GTGCGGAGATCAAGATCTGTATGAGATCTGCGGAGAGAGGCGGATCGCGGCTTCAACAG 600  
Db 541 GTGCGGAGATCAAGATCTGTATGAGATCTGCGGAGAGAGGCGGATCGCGGCTTCAACAG 600  
QY 601 CTGATCGGCGCGGAGAGTCAATCGCGGAGCAACATGTGACCCAGCTGAGCTGC 660  
Db 601 CTGATCGGCGCGGAGAGTCAATCGCGGAGCAACATGTGACCCAGCTGAGCTGC 660  
QY 661 ACCCTGAACCTTCCCGATAGCCCGCATGAGACCGGTGCGGAGAGCTGAGAGCGGAG 720  
Db 661 ACCCTGAACCTTCCCGATAGCCCGCATGAGACCGGTGCGGAGAGCTGAGAGCGGAG 720  
QY 721 GACCGGCGGAGAGTGAAGTGAAGTGGCGGCTGAGCCGAGAGAGATCAAGCGCTGAG 780  
Db 721 GACCGGCGGAGAGTGAAGTGAAGTGGCGGCTGAGCCGAGAGAGATCAAGCGCTGAG 780  
QY 781 ATCTGCGGAGAGTGAAGAGAGGCAAGATCAACAGATCGGCGGAGAGAGAGAGAGAG 840  
Db 781 ATCTGCGGAGAGTGAAGAGAGGCAAGATCAACAGATCGGCGGAGAGAGAGAGAGAG 840  
QY 841 AACACCCCGGTGTTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900  
Db 841 AACACCCCGGTGTTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900  
QY 901 TTCCGCGAGCTGAACCAAGCGACCTTGTGAGAGGTGAGAGTGGAGATCCCGGAG 960  
Db 901 TTCCGCGAGCTGAACCAAGCGACCTTGTGAGAGGTGAGAGTGGAGATCCCGGAG 960  
QY 961 CCGCGCGGAGTGAAG 1020  
Db 961 CCGCGCGGAGTGAAG 1020  
QY 1021 AGCGTGGCGCTGGAAG 1080  
Db 1021 AGCGTGGCGCTGGAAG 1080  
QY 1081 AACGAG 1140  
Db 1081 AACGAG 1140  
QY 1141 CCGAG 1200  
Db 1141 CCGAG 1200  
QY 1201 GAGATCGTGAATCAACCA-----GAGCGCGCTGTATCGTGGAGAGAGAGAGAGAG 1254  
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QY 1255 CAGGAG 1314  
Db 1255 CAGGAG 1314  
QY 1320 CAGGAG 1320  
Db 1320 CAGGAG 1320

QY 1315 CCGGAG 1374  
Db 1321 CCGGAG 1380  
QY 1375 GAG 1434  
Db 1381 GAG 1440  
QY 1435 ATCCAG 1494  
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QY 1495 CCGGAG 1554  
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QY 1555 GAG 1614  
Db 1561 GAG 1620  
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Db 1621 GTGATCAAG 1680  
QY 1675 TGAG 1734  
Db 1681 TGAG 1740  
QY 1735 ATGAG 1794  
Db 1741 ATGAG 1800  
QY 1795 ATGAG 1854  
Db 1801 ATGAG 1860  
QY 1855 ACTGAG 1914  
Db 1861 ACTGAG 1920  
QY 1915 GTGAG 1974  
Db 1921 GTGAG 1980  
QY 1975 GCGGAG 2034  
Db 1981 GCGGAG 2040  
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Db 2041 TACGTGAG 2100  
QY 2095 ACCGAG 2154  
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QY 2155 ACCGAG 2214  
Db 2161 ACCGAG 2220  
QY 2215 CTGATGAG 2274  
Db 2221 CTGATGAG 2280  
QY 2275 CCGGAG 2334  
Db 2281 CCGGAG 2340  
QY 2335 CCGAG 2394  
Db 2341 CCGAG 2400  
QY 2395 GACCTGTATCGTGGAG 2454  
Db 2400 GACCTGTATCGTGGAG 2454



Db 2401 GACCTGACGTGGCGAGCGCCCTAGATTCATTAAGCTTCCGGGCTTAGCAC 2460  
QY 2455 GGTGAATTC 2463  
Db 2461 GGTGAATTC 2469

## RESULT 5

US-09-899-575-32  
Sequence 32, Application US/09899575  
Publication No. US20030223961A1  
GENERAL INFORMATION:  
APPLICANT: Zur Megede, Jan  
APPLICANT: Barnett, Susan W.  
APPLICANT: Egnelbrecht, Susan  
APPLICANT: van Rensburg, Beirelita Janse  
TITLE OF INVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C  
FILE REFERENCE: PP01631.102  
CURRENT APPLICATION NUMBER: US/09/899,575  
CURRENT FILING DATE: 2001-07-05  
PRIOR APPLICATION NUMBER: 09/475,704  
PRIOR FILING DATE: 1999-12-30  
NUMBER OF SEQ ID NOS: 135  
SOFTWARE: Patent Ver. 2.0  
SEQ ID NO 32  
LENGTH: 2457  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: PR975YMM  
US-09-899-575-32

Query Match 98.9%; Score 2436.2; DB 3; Length 2457;

Best Local Similarity 99.6%; Pred. No. 0;

Matches 2454; Conservative 0; Mismatches 3; Indels 6; Gaps 1;

QY 1 GTGACGCGACCATGCGCGGCGCATGAGCCAGGCGCCAGCGCCCAATCTCTGATGAG 60  
Db 1 GTGACGCGACCATGCGCGGCGCATGAGCCAGGCGCCAGCGCCCAATCTCTGATGAG 60  
QY 61 CGGAGCACTTCAAGGGGCGCCCAAGCGCATCATCAAGTCTTCACTGCGGCAAGAGGCG 120  
Db 61 CGGAGCACTTCAAGGGGCGCCCAAGCGCATCATCAAGTCTTCACTGCGGCAAGAGGCG 120  
QY 121 CACATGCGCGGCACTGCG 180  
Db 121 CACATGCGCGGCACTGCG 180  
QY 181 GGGCACAAGTGAAGGACTGCAACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 240  
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QY 241 TTCCCGCAGGCGCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 300  
Db 241 TTCCCGCAGGCGCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 300  
QY 301 AGCGCGAGGCTGAGGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 360  
Db 301 AGCGCGAGGCTGAGGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 360  
QY 361 GGGACCTGAACTTCCCGCAGATCACCTGCTGGCAGCGCGCGCGCGCGCGCGCGCG 420  
Db 361 GGGACCTGAACTTCCCGCAGATCACCTGCTGGCAGCGCGCGCGCGCGCGCGCGCG 420  
QY 421 GGGCGCGAGTCAAGAGGCGCGCTGCTGAGACACCGCGCGCGCGCGCGCGCGCGCG 480  
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QY 481 ATGAGCTGCG 540  
Db 481 ATGAGCTGCG 540

QY 541 GTGCGCGAGTACGACCAAGATCTGATGAGATCTGCGCGCAAGAGGCGCATCGGCGCG 600  
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QY 601 CTGATCGGCG 660  
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QY 661 ACCCTGAACCTTCCCGCATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 720  
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QY 721 GACCG 780  
Db 721 GACCG 780  
QY 781 ATCTCGAGAGATGAGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 840  
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QY 841 AACACCG 900  
Db 841 AACACCG 900  
QY 901 TTCCCGCGAGTGAACAAGCGCACCCGAGGAGTCTGCGGAGGCTGCGCGCGCGCG 960  
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QY 961 CCG 1020  
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QY 1021 AGCGTCCCGTGAAGAGAGGAGTCTCGCGAGTACACCGCTTCAACATCCCGCATCAAC 1080  
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QY 1081 AACGAGACCG 1140  
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QY 1141 CCAGCATCTTCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1200  
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QY 1381 TGGACCGTGAAGGCG 1440  
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QY 1441 AAGCTGCTGAGGCG 1500  
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Db 1614 GCGGAGCTGAGGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1614



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QY 1621 TAGACCCCGACGAGACCTGTGTGCGGAGATCCAGAAAGCGGCGACGACCACTGTGAC 1680
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QY 1681 TACGAGATCTACGAGAGACCTTCAAGAACTGAAAGACCGGCAAGTACGCCAAGATGGC 1740
Db 1675 TACGAGATCTACGAGAGACCTTCAAGAACTGAAAGACCGGCAAGTACGCCAAGATGGC 1734
QY 1741 ACCGCCCAACCAACGAGCTGAGAGAGCTGACCGAGCGCTGACAGAAAGTGCATGAG 1800
Db 1735 ACCGCCCAACCAACGAGCTGAGAGAGCTGACCGAGCGCTGACAGAAAGTGCATGAG 1794
QY 1801 AGCATCTGTATCTGGGCGCAAGACCCCAAGTTCCGCTCCCATCCAGAGAGACTGG 1860
Db 1795 AGCATCTGTATCTGGGCGCAAGACCCCAAGTTCCGCTCCCATCCAGAGAGACTGG 1854
QY 1861 GAGACCTGTGTGACCGATCTACGAGAGGCGACCTGGATCCCGAGTGGAGTGTGTGAC 1920
Db 1855 GAGACCTGTGTGACCGATCTACGAGAGGCGACCTGGATCCCGAGTGGAGTGTGTGAC 1914
QY 1921 ACCGCCCGCTGTGTGAAAGCTGTGTGACCGAGCTGAGAGAGAGCCCATCTGCGCGCGAG 1980
Db 1915 ACCGCCCGCTGTGTGAAAGCTGTGTGACCGAGCTGAGAGAGAGCCCATCTGCGCGCGAG 1974
QY 1981 ACCTTCTACGTGTGACGAGCGCGCGCAACCGCGAGACCAAGATCGGCAAGCGCTTACG 2040
Db 1975 ACCTTCTACGTGTGACGAGCGCGCGCAACCGCGAGACCAAGATCGGCAAGCGCTTACG 2034
QY 2041 ACCGACCGGCGCGCGCGCAAGATCGTGTGACCTGACCGAGACCAACCAAGAGCCGAG 2100
Db 2035 ACCGACCGGCGCGCGCGCAAGATCGTGTGACCTGACCGAGACCAACCAAGAGCCGAG 2094
QY 2101 CTGACGAGCATCTGACAGCTGGCCTGTGAGAGACGCGGACGAGTGAACATGTGTGACGAC 2160
Db 2095 CTGACGAGCATCTGACAGCTGGCCTGTGAGAGACGCGGACGAGTGAACATGTGTGACGAC 2154
QY 2161 AGCCAGTACGCGCTGTGTGATCTACAGGCGCGCAAGAGCGGAGAGCGAGCTGTGTG 2220
Db 2155 AGCCAGTACGCGCTGTGTGATCTACAGGCGCGCAAGAGCGGAGAGCGAGCTGTGTG 2214
QY 2221 AACCGATCATCTGACAGCTGTGATCAAGAAAGAGAGTGTACCTGTGCTGTGTGCGCCG 2280
Db 2215 AACCGATCATCTGACAGCTGTGATCAAGAAAGAGAGTGTACCTGTGCTGTGTGCGCCG 2274
QY 2281 CACAAAGGCGATCGGCGGCAACGAGCATGCAAGAGCTGTGTGAGAGAGGCGATCCGCAAG 2340
Db 2275 CACAAAGGCGATCGGCGGCAACGAGCATGCAAGAGCTGTGTGAGAGAGGCGATCCGCAAG 2334
QY 2341 GTGCTGTCTGTGACGCGCATCGATGGCGGCAATCGTGTCTACCAAGTACATGAGCGACTG 2400
Db 2335 GTGCTGTCTGTGACGCGCATCGATGGCGGCAATCGTGTCTACCAAGTACATGAGCGACTG 2394
QY 2401 TACGTGTGCGAGCGGCGGCTGTGAGTTCGATTTAAAGCTTCCCGGGGCTTACGACCGGTAA 2460
Db 2395 TACGTGTGCGAGCGGCGGCTGTGAGTTCGATTTAAAGCTTCCCGGGGCTTACGACCGGTAA 2454
QY 2461 TTC 2463
Db 2455 TTC 2457

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RESULT 6
US-10-190-435-45
; Sequence 45, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Beirelita J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF

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; FILE REFERENCE: p18133.003 / 2302-18133
; CURRENT APPLICATION NUMBER: US/10190.435
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 45
; LENGTH: 2457
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: p2polopt_C
US-10-190-435-45

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Query Match 98.7%; Score 2430.2; DB 6; Length 2457;
Best Local Similarity 99.6%; Pred. No. 0;
Matches 2448; Conservative 0; Mismatches 3; Indels 6; Gaps 1;

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QY 7 GCCACATGCGCGGAGGCGCATGAGCGGCGACCGCGCAACATCTGTGATGACGCGGACG 66
Db 1 GCCACATGCGCGGAGGCGCATGAGCGGCGACCGCGCAACATCTGTGATGACGCGGACG 60
QY 67 AACTTCAAGGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGCAAGAGAGGCGCACATC 126
Db 61 AACTTCAAGGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGCAAGAGAGGCGCACATC 120
QY 127 GCCCGCAACTGCGCGCGCGCGCGCGCAAGAGGCTGTGAAAGTGCAGGCAAGAGGCGAC 186
Db 121 GCCCGCAACTGCGCGCGCGCGCGCGCAAGAGGCTGTGAAAGTGCAGGCAAGAGGCGAC 180
QY 187 CAGATGAAGAGCTGACCGAGGCGCGACGCTTCTTCCGCGAGAGACTGTGGCTTCCG 246
Db 181 CAGATGAAGAGCTGACCGAGGCGCGACGCTTCTTCCGCGAGAGACTGTGGCTTCCG 240
QY 247 CAGGCGAAGGCGCGGAGTTCGCGAGCGAGAGCAACCGCGCAACAGCGCCACAGCGCGC 306
Db 241 CAGGCGAAGGCGCGGAGTTCGCGAGCGAGAGCAACCGCGCAACAGCGCCACAGCGCGC 300
QY 307 GAGCTGCAAGTGCAGCGCGGCAACCGCGCGAGAGGCGCGGCGCGCAAGGCGCAC 366
Db 301 GAGCTGCAAGTGCAGCGCGGCAACCGCGCGAGAGGCGCGGCGCGCAAGGCGCAC 360
QY 367 CTGAACTTCCCGCAATACCTGTGTGAGAGCGCCCTGTGTGAGCATCAAGTGTGGCGG 426
Db 361 CTGAACTTCCCGCAATACCTGTGTGAGAGCGCCCTGTGTGAGCATCAAGTGTGGCGG 420
QY 427 CAGATCAAGAGGCGCGCTGTGACACCGGCGCGGCGGCAACCGTGTGTGAGAGATGAGC 486
Db 421 CAGATCAAGAGGCGCGCTGTGACACCGGCGCGGCGGCAACCGTGTGTGAGAGATGAGC 480
QY 487 CTGCGCGGCAAGTGAAGCGCCCAAGATGATCGGCGGCAATCGGCTTCTCATCAAGTGTGCG 546
Db 481 CTGCGCGGCAAGTGAAGCGCCCAAGATGATCGGCGGCAATCGGCTTCTCATCAAGTGTGCG 540
QY 547 CAGTACGACGAGATCTGTGTGAGATCTGCGGCAAGAAAGGCGCATTCGGCATCGTGTGATC 606
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QY 607 GGGCCCAACCGCGGTGAACATCATCGGCGGCAACATGCTGACCCAGCTGGGCTGACCTTG 666
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QY 667 AACTTCCCATCAAGCCCGCATGAGACCGTGTGCGGTGAAGCTGAAGCCCGGCGATGAGCGG 726
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QY 727 CCGAAGGTGAAGCAAGTGGCGCTTGTGACCGAGAGAAAGATCAAGGCGCTTGAACCTGTGC 786
Db 721 CCGAAGGTGAAGCAAGTGGCGCTTGTGACCGAGAGAAAGATCAAGGCGCTTGAACCTGTGC 780
QY 787 GAGGAGATGAGAGAGAGGAGAGATCAACAAAGATCGGCGCGGAGAACCCCTTACAAACCC 846
Db 781 GAGGAGATGAGAGAGAGGAGAGATCAACAAAGATCGGCGCGGAGAACCCCTTACAAACCC 840

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QY 847 CCCGTTTCGCATCAAGAAAGAGACAGCAACCAAGTGGCCGCAAGCTGTGGACTTCCGC 906  
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 QY 907 GAGCTGAACAAGCCGACCCAGGACTTCTGGAGAGTGCAGCTGGGACTCCGCCACCCGCC 966  
 DB 901 GAGCTGAACAAGCCGACCCAGGACTTCTGGAGAGTGCAGCTGGGACTCCGCCACCCGCC 960  
 QY 967 GGCCTGAAGAAAGAAAGAGAGCCGTGACCGTGTGGAAGTGGGAGAGCGCTTACTTACGCTG 1026  
 DB 961 GGCCTGAAGAAAGAAAGAGAGCGGTGACCGTGTGGAAGTGGGAGAGCGCTTACTTACGCTG 1020  
 QY 1027 CCCCTGAAGAGAGACTTCCGCAAGTACACCGCTTCAAGTATCCCAAGCATCAACAAGAG 1086  
 DB 1021 CCCCTGAAGAGAGACTTCCGCAAGTACACCGCTTCAAGTATCCCAAGCATCAACAAGAG 1080  
 QY 1087 ACCCCGCGGATCCGCTACCAAGTACAAAGTGTGAGCCGCGAGGCTGGAGAGGCGAGCCCGACG 1146  
 DB 1081 ACCCCGCGGATCCGCTACCAAGTACAAAGTGTGAGCCGCGAGGCTGGAGAGGCGAGCCCGACG 1140  
 QY 1147 ATCTTCAAGAGAGCATGACCAAGATCTGAGAGCCCTTCCGCGCCGCAACCCCGAGATC 1206  
 DB 1141 ATCTTCAAGAGAGCATGACCAAGATCTGAGAGCCCTTCCGCGCCGCAACCCCGAGATC 1200  
 QY 1207 GTGATCTACCA-----GGCCCCCTGTGAGTGGGAGAGCGACTTGGAGATGGGCCAGCAC 1260  
 DB 1201 GTGATCTACCAAGTACATGACGACCTGTGAGTGGGAGAGCGACTTGGAGATGGGCCAGCAC 1260  
 QY 1261 CCGCGCAAGATGAGAGAGAGTGGGCAAGAGCACTGTGCGCTGGAGGCTTCAACAACCCCGAC 1320  
 DB 1261 CCGCGCAAGATGAGAGAGAGTGGGCAAGAGCACTGTGCGCTGGAGGCTTCAACAACCCCGAC 1320  
 QY 1321 AAGAGACCAAGAGAGAGCCCTTCTGTGAGTGGGCTAGAGCTGACCCCGCAAG 1380  
 DB 1321 AAGAGACCAAGAGAGAGCCCTTCTGTGAGTGGGCTAGAGCTGACCCCGCAAG 1380  
 QY 1381 TGGACCTGAGAGCCCATGAGCTGCCGAGAGAGAGAGCTGGAACCTGAAACGACATCCAG 1440  
 DB 1381 TGGACCTGAGAGCCCATGAGCTGCCGAGAGAGAGAGCTGGAACCTGAAACGACATCCAG 1440  
 QY 1441 AAGCTGTGGGAGAGCTGGAAGTGGGCAAGCACTTACCCCGGCAATCAAGAGTGGCCAG 1500  
 DB 1441 AAGCTGTGGGAGAGCTGGAAGTGGGCAAGCACTTACCCCGGCAATCAAGAGTGGCCAG 1500  
 QY 1501 CTGTGCAAGCTGTGCGCGCGCCCAAGGCTTGAACCGACATCTGCTCCCTGACCGAGAG 1560  
 DB 1501 CTGTGCAAGCTGTGCGCGCGCCCAAGGCTTGAACCGACATCTGCTCCCTGACCGAGAG 1560  
 QY 1561 GCGGAGCTGAGAGCTGGCCGAGAACCGGAGATCTGCGGAGCCGCTGCAAGGCTGTGAC 1620  
 DB 1561 GCGGAGCTGAGAGCTGGCCGAGAACCGGAGATCTGCGGAGCCGCTGCAAGGCTGTGAC 1620  
 QY 1621 TACGACCCCAAGAGAGAGCTGTGGCCGAGATCTCAAGAGAGGCGCAACGACGATGAGAC 1680  
 DB 1621 TACGACCCCAAGAGAGAGCTGTGGCCGAGATCTCAAGAGAGGCGCAACGACGATGAGAC 1680  
 QY 1681 TACCAAGTCTACCAAGAGAGCCCTTCAAGAGAGCTGAAAGCGGCAAGTACCGCAAGATGCGC 1740  
 DB 1681 TACCAAGTCTACCAAGAGAGCCCTTCAAGAGAGCTGAAAGCGGCAAGTACCGCAAGATGCGC 1740  
 QY 1741 ACCGCGCAACAAGAGAGAGCTGAAAGAGCTGACCGAGGCGCTGCAAGAGATGCGCATGAGAG 1800  
 DB 1741 ACCGCGCAACAAGAGAGAGCTGAAAGAGCTGACCGAGGCGCTGCAAGAGATGCGCATGAGAG 1800  
 QY 1801 AGCATGTGTATCTGGGGCAAGAGAGCTTCCGCTGCGCATCCAGAGAGAGAGAGAGAGAGAG 1860  
 DB 1801 AGCATGTGTATCTGGGGCAAGAGAGCTTCCGCTGCGCATCCAGAGAGAGAGAGAGAGAGAG 1860  
 QY 1861 GAGACCTGTGAG 1920  
 DB 1861 GAGACCTGTGAG 1920  
 QY 1921 ACCCGCGCGCTGTGAGAGCTGTGTGATCAAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980

DB 1921 ACCCGCGCGCTGTGAGAGCTGTGTGATCAAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980  
 QY 1981 ACCTTCTACGTGAG 2040  
 DB 1981 ACCTTCTACGTGAG 2040  
 QY 2041 ACCGACCGGGGCGGCAAG 2100  
 DB 2041 ACCGACCGGGGCGGCAAG 2100  
 QY 2101 CTGAGAGCATCAAGCTGAG 2160  
 DB 2101 CTGAGAGCATCAAGCTGAG 2160  
 QY 2161 AGCAGTACGCGCTGGGAGATCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2220  
 DB 2161 AGCAGTACGCGCTGGGAGATCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2220  
 QY 2221 AACGAGATCATCAAG 2280  
 DB 2221 AACGAGATCATCAAG 2280  
 QY 2281 CACAAGGAGATCGGCGGCAAG 2340  
 DB 2281 CACAAGGAGATCGGCGGCAAG 2340  
 QY 2341 GTGCTGTTCTGAG 2400  
 DB 2341 GTGCTGTTCTGAG 2400  
 QY 2401 TACGTTGGGAG 2457  
 DB 2401 TACGTTGGGAG 2457

## RESULT 7

US-10-190-305A-39

Sequence 39, Application US/10190305A

Publication No. US20030198621A1

GENERAL INFORMATION:

APPLICANT: ZUR MEGEDE, Jan

APPLICANT: BARRETT, Susan

APPLICANT: LIAN, Ying

TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR

TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF

FILE REFERENCE: 2302-18702 / 18702.002

CURRENT APPLICATION NUMBER: US/10/190,305A

CURRENT FILING DATE: 2002-07-05

NUMBER OF SEQ ID NOS: 93

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 39

LENGTH: 2457

TYPE: DNA

ORGANISM: Artificial Sequence

OTHER INFORMATION:

Description of Artificial Sequence: p2polopt\_C

US-10-190-305A-39

Query Match 98.7%; Score 2430.2; DB 6; Length 2457;  
 Best Local Similarity 99.6%; Pred. No. 0;  
 Matches 2448; Conservative 0; Mismatches 3; Indels 6; Gaps 1;

QY 7 GCCACCATGGCGGAGGCGCATGAGCCAGGCGCACCAAGCGCAATCTTATGACGCGCAGC 66  
 DB 1 GCCACCATGGCGGAGGCGCATGAGCCAGGCGCACCAAGCGCAATCTTATGACGCGCAGC 60  
 QY 67 AACTTCAAGGCGCCCAAGGAGCATCATAGTGTTCATCTGCGGCAAGAGAGGCGCATC 126  
 DB 61 AACTTCAAGGCGCCCAAGGAGCATCATAGTGTTCATCTGCGGCAAGAGAGGCGCATC 120  
 QY 127 GCCCGAATGCGCGGCGCCCGGCAAGAGAGGCTGTGAGAGTGGCGCAAGAGAGGCGCAC 186

Db 121 GCCCGCACTGCGCGCGCCCGCCGCAAGAGGCTGGAAGTGGCGCAAGAGGCGCAC 180  
Qy 187 CAGATGAAGAGCTGCAACGAGGCGCCAGGCACTTCTTCCGAGAGGACTGGGCTTCCCG 246  
Db 181 CAGATGAAGAGCTGCAACGAGGCGCCAGGCACTTCTTCCGAGAGGACTGGGCTTCCCG 240  
Qy 247 CAGGCGAAGGCGCGGAGTTCCCGAGGCGCAAGAACCGCGCCACAGGCCCGCACGCGG 306  
Db 241 CAGGCGAAGGCGCGGAGTTCCCGAGGCGCAAGAACCGCGCCACAGGCCCGCACGCGG 300  
Qy 307 GAGCTGCAAGTGGCGGCGCAACCCCGCGAGCGAGGCGCGGCGCGGCGCGGCGCGG 366  
Db 301 GAGCTGCAAGTGGCGGCGCAACCCCGCGAGCGAGGCGCGGCGCGGCGCGGCGCGG 360  
Qy 367 CTGAACCTTCCCGCAGATCACTGTGGAGGCGCGCGCTGTGGAGCATCAAGGTGGGCGG 426  
Db 361 CTGAACCTTCCCGCAGATCACTGTGGAGGCGCGCGCTGTGGAGCATCAAGGTGGGCGG 420  
Qy 427 CAGATCAAGAGGCGCTGCTGACACCGCGCGCGCAACCGTGTGAGAGAGATGAGC 486  
Db 421 CAGATCAAGAGGCGCTGCTGACACCGCGCGCGCAACCGTGTGAGAGAGATGAGC 480  
Qy 487 CTGCGCGCGCAAGTGAAGCCCAAGATGATCGCGCGCATCGCGGCTTCAACAAGTGGC 546  
Db 481 CTGCGCGCGCAAGTGAAGCCCAAGATGATCGCGCGCATCGCGGCTTCAACAAGTGGC 540  
Qy 547 CAGTACGACAGATCTGATCGAGATCTGCGCGCAAGAGGCGCATCGGACCGGTGTGATC 606  
Db 541 CAGTACGACAGATCTGATCGAGATCTGCGCGCAAGAGGCGCATCGGACCGGTGTGATC 600  
Qy 607 GGGCGCCACCGCGTGACATCATCGCGCGCAACATGTGACCCAGCTGGGCTGACCGCTG 666  
Db 601 GGGCGCCACCGCGTGACATCATCGCGCGCAACATGTGACCCAGCTGGGCTGACCGCTG 660  
Qy 667 AACTTCCCATCAGCCCCATCGAGACCGTGCCCTGTGAAGCTGAAGCCCGGCGATGAGCGG 726  
Db 661 AACTTCCCATCAGCCCCATCGAGACCGTGCCCTGTGAAGCTGAAGCCCGGCGATGAGCGG 720  
Qy 727 CCAAGGTGAAGCAGTGGCGCTGTGACCGAGGAGAGATCAAGGCGCTGACCGGCGCATGCG 786  
Db 721 CCAAGGTGAAGCAGTGGCGCTGTGACCGAGGAGAGATCAAGGCGCTGACCGGCGCATGCG 780  
Qy 787 GAGGAGATGAGAGAGAGAGGCGCAAGATCAACAGATCGGCGCGCGAGAACCCCTTACAAACC 846  
Db 781 GAGGAGATGAGAGAGAGAGGCGCAAGATCAACAGATCGGCGCGCGAGAACCCCTTACAAACC 840  
Qy 847 CCGGTGTTCCCATCAAG 906  
Db 841 CCGGTGTTCCCATCAAG 900  
Qy 907 GAGCTGAACAGCGGACCGAGGACTTCTGGAGGTGAGCTGGGAGTCCCGCACCGCGC 966  
Db 901 GAGCTGAACAGCGGACCGAGGACTTCTGGAGGTGAGCTGGGAGTCCCGCACCGCGC 960  
Qy 967 GGCCTGAAG 1026  
Db 961 GGCCTGAAG 1020  
Qy 1027 CCGCTGAG 1086  
Db 1021 CCGCTGAG 1080  
Qy 1087 ACCCGCGGATCGCTACAGTCAACAGTGTGCGCCAGGAGTGAAGGAGAGAGAGAGAGAG 1146  
Db 1081 ACCCGCGGATCGCTACAGTCAACAGTGTGCGCCAGGAGTGAAGGAGAGAGAGAGAGAG 1140  
Qy 1147 ATCTTCAAG 1206  
Db 1141 ATCTTCAAG 1200  
Qy 1207 GTGATCTACCA-----GGCGCGCTGTACGTGGCGAGAGAGAGAGAGAGAGAGAGAG 1260  
Db 1201 GTGATCTACCAAGTACAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1260

Qy 1261 CGCGCCAGATCGAG 1320  
Db 1261 CGCGCCAGATCGAG 1320  
Qy 1321 AAG 1380  
Db 1321 AAG 1380  
Qy 1381 TGAACCGTGAAG 1440  
Db 1381 TGAACCGTGAAG 1440  
Qy 1441 AAGCTGTGGAG 1500  
Db 1441 AAGCTGTGGAG 1500  
Qy 1501 CTGTGCAAGCTGTGCGCGCGCAAGGCGCTGACCGAGCATGTGCGCTTGAACCGAGAGAG 1560  
Db 1501 CTGTGCAAGCTGTGCGCGCGCAAGGCGCTGACCGAGCATGTGCGCTTGAACCGAGAGAG 1560  
Qy 1561 GCGGAGCTGAG 1620  
Db 1561 GCGGAGCTGAG 1620  
Qy 1621 TACGAG 1680  
Db 1621 TACGAG 1680  
Qy 1681 TACGAG 1740  
Db 1681 TACGAG 1740  
Qy 1741 ACCCGCCACAG 1800  
Db 1741 ACCCGCCACAG 1800  
Qy 1801 AGCATCTGATCTGGGCGAG 1860  
Db 1801 AGCATCTGATCTGGGCGAG 1860  
Qy 1861 GAGAGCTGTGAG 1920  
Db 1861 GAGAGCTGTGAG 1920  
Qy 1921 ACCCGCGCGGTGAG 1980  
Db 1921 ACCCGCGCGGTGAG 1980  
Qy 1981 ACTTCTTACAGTGAAG 2040  
Db 1981 ACTTCTTACAGTGAAG 2040  
Qy 2041 ACCGAGCGGAG 2100  
Db 2041 ACCGAGCGGAG 2100  
Qy 2101 CTGAG 2160  
Db 2101 CTGAG 2160  
Qy 2161 AGCGAGTACGCGCTGGGAGATCATCGAGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2220  
Db 2161 AGCGAGTACGCGCTGGGAGATCATCGAGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2220  
Qy 2221 AACGAGATCATGAG 2280  
Db 2221 AACGAGATCATGAG 2280  
Qy 2281 CACAG 2340  
Db 2281 CACAG 2340

Qy	2341	GTGCTGTTCCGCGACGGATGATAGGCGGCGATCCGATCTACAGTACATGAGACACTG	2400
Dy	2341	GTGCTGTTCCGCGACGGATGATAGGCGGCGATCCGATCTACAGTACATGAGACACTG <td>2400</td>	2400
Qy	2401	TACGTGGGACACGGCGCGCCCTTAGATCGATTAAAAAGCTTCCCGGGGCTAGGACACGGT	2457
Dy	2401	TACGTGGGACACGGCGCGCCCTTAGATCGATTAAAAAGCTTCCCGGGGCTAGGACACGGT	2457

### RESULT 8

US-10-190-435-43  
: Sequence 43, Application US/10190435  
: Publication No. US20030143248A1  
: GENERAL INFORMATION:  
: APPLICANT: ZUR MEGEDE, Jan  
: APPLICANT: BARNETT, Susan W.  
: APPLICANT: LIAN, Ying  
: APPLICANT: ENGELBRECHT, Susan  
: APPLICANT: VAN RENSBURG, Estrelita J.  
: TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
: TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
: FILE REFERENCE: PPI8133.003 / 2302-18133  
: CURRENT APPLICATION NUMBER: US/1010190,435  
: CURRENT FILING DATE: 2002-12-30  
: NUMBER OF SEQ ID NOS: 319  
: SOFTWARE: PatentIn Ver. 2.0  
: SEQ ID NO 43  
: LENGTH: 2445  
: TYPE: DNA  
: ORGANISM: Artificial Sequence  
: FEATURES:  
: OTHER INFORMATION: Description of Artificial Sequence: p2Pol.opc.YMMM\_C  
: US-10-190-435-43

Query Match	98.4%;	Score 2422.6;	DB 6;	length 2445;
Best Local Similarity	99.6%;	Pred. No. 0;		
Matches 2441; Conservative	0;	Mismatches 4;	Indels 6;	Gaps 1.

OY	7	GGCACCAATGGCCGAGGCGCATAGGCCAGGACACCAACCGCCAAATCTGATGAGGCGAGC	66
Db	1	GCACCAATGGCCGAGGCGCATAGGCCAGGACACCAACCGCCAAATCTGATGAGGCGAGC	60
OY	67	AACCTCAAGGGGCCCCAAGGCGCATCATCAAGTGCTTCAATGCGGCGAAGAGGGCCACATC	126
Db	61	AACCTCAAGGGGCCCCAAGGCGCATCATCAAGTGCTTCAATGCGGCGAAGAGGGCCACATC	120
OY	127	GCCCGCAACTGCGCGGCCCCCGCGAAGAGGGCTGTGAAATGTCGCGCAAGAGAGGCGCAC	186
Db	121	GCCCGCAACTGCGCGGCCCCCGCGAAGAGGGCTGTGAAATGTCGCGCAAGAGAGGCGCAC	180
OY	187	CAGATGAAGACTGCACCGAGCGCCAGGSCAACTTTCTTCGCGAGGACCTTGGCTTTCCC	246
Db	181	CAGATGAAGACTGCACCGAGCGCCAGGSCAACTTTCTTCGCGAGGACCTTGGCTTTCCC	240
OY	247	CAGGGCAGAGCCCCCGAGATTCCCCCAGCCAGAGCAAAACCGGCGCAACAGGCCCAACGAGCGC	306
Db	241	CAGGGCAGAGCCCCCGAGATTCCCCCAGCCAGAGCAAAACCGGCGCAACAGGCCCAACGAGCGC	300
OY	307	GAGCTGCAGAGTGGCGGCGGCAAAACCCCGAGGAGAGCGCGGCCGAGGCGCAGGCGCAC	366
Db	301	GAGCTGCAGAGTGGCGGCGGCAAAACCCCGAGGAGAGCGCGGCCGAGGCGCAGGCGCAC	360
OY	367	CTGAACCTTCCCCCAGATCAACCTGTGTGGCAGCGCCCCCTGATGAGCATCAAGTGTGGCGC	426
Db	361	CTGAACCTTCCCCCAGATCAACCTGTGTGGCAGCGCCCCCTGATGAGCATCAAGTGTGGCGC	420
OY	427	CAGATCAAGAGGCGCTTGCTGACACCCGCGGCGCTGACGACACCGTGTGTGAGAGATGAGC	486
Db	421	CAGATCAAGAGGCGCTTGCTGACACCCGCGGCGCTGACGACACCGTGTGTGAGAGATGAGC	480
OY	487	CTGCCCGGGAATGGAAGCCCAAGATGATCGGCGGCGATCGGCGGCTTCAATCAAGTGGCG	546
Db	481	CTGCCCGGGAATGGAAGCCCAAGATGATCGGCGGCGATCGGCGGCTTCAATCAAGTGGCG	540

QY	547	CAATGACCAACGAGTCTCTGATGAGATCTGCGCCAAAGAAAGGCCATGCGACCGGTGCTAATC	606
Db	541	CAGTACGACCAAGATCTCTGATGAGATCTGCGCCAAAGAAAGGCCATGCGACCGGTGCTAATC	600
QY	607	GGCCCCAACCCCCGTGATCATCATCGGCGCGCAACATGCTGACCCAGCTGGGCTGCACCCCTG	666
Db	601	GGCCCCAACCCCCGTGATCATCATCGGCGCGCAACATGCTGACCCAGCTGGGCTGCACCCCTG	660
QY	667	AACTTCCCCCATCAGCCCATCGAGACCGGTGCCGTGAAGCTGAAGCCCGGCATTCGACGGC	726
Db	661	AACTTCCCCCATCAGCCCATCGAGACCGGTGCCGTGAAGCTGAAGCCCGGCATTCGACGGC	720
QY	727	CCCAAGGTGAAGCAGTGGCCCTTGCACCGAAGAAAGATTCAAAGCCCTGACCCGCATCTGCG	786
Db	721	CCCAAGGTGAAGCAGTGGCCCTTGCACCGAAGAAAGATTCAAAGCCCTGACCCGCATCTGCG	780
QY	787	GAGGAGATGAGGAAGAAGGGGCAAGATTCACAAATCGGCCCCCGAAGAACCCCTTACCAACACC	846
Db	781	GAGGAGATGAGGAAGAAGGGGCAAGATTCACAAATCGGCCCCCGAAGAACCCCTTACCAACACC	840
QY	847	CCCGTGTTCGCCATCAAGAAAGAGACACCAAGTGGCGCAAGCTGTGTGACCTTCCGC	906
Db	841	CCCGTGTTCGCCATCAAGAAAGAGACACCAAGTGGCGCAAGCTGTGTGACCTTCCGC	900
QY	907	GAGCTGAACAAAGCCGACCCAGGACTTCTGTGGAGGTGACAGTGGGCACTCCCCACCCCGCC	966
Db	901	GAGCTGAACAAAGCCGACCCAGGACTTCTGTGGAGGTGACAGTGGGCACTCCCCACCCCGCC	960
QY	967	GGCCTGGAAGAAAGAAAGAGCGCTGACCGGTGACGTGTGGGAGAGCGCTTAATCTCAGCGTG	1020
Db	961	GGCCTGGAAGAAAGAAAGAGCGGTGACCGGTGACGTGTGGGAGAGCGCTTAATCTCAGCGTG	1020
QY	1027	CCGCTGGAAGAGGAACTTCCGCAAGTACACCGGCTTTCACATCCCGACATTCACAAAGAG	1080
Db	1021	CCGCTGGAAGAGGAACTTCCGCAAGTACACCGGCTTTCACATCCCGACATTCACAAAGAG	1080
QY	1087	ACCCCGCGGATCGCTGACCAAGTACACAGTGTGCGCCACAGGCGTGGAAAGGCGAGCCCGACG	1144
Db	1081	ACCCCGCGGATCGCTGACCAAGTACACAGTGTGCGCCACAGGCGTGGAAAGGCGAGCCCGACG	1144
QY	1147	ATCTTTCAGAGCAGCATGACCAAGATCTGTGAGACCTTTCGCGGCGCGCAACCCCGAGATC	1200
Db	1141	ATCTTTCAGAGCAGCATGACCAAGATCTGTGAGACCTTTCGCGGCGCGCAACCCCGAGATC	1200
QY	1207	GTGATTTACAGGCGCCCGCTGTACGTGTGGCAGCGGACTTGGAGATTCGGCCAGCACCGCGCC	1260
Db	1201	GTGATTTACAGGCGCCCGCTGTACGTGTGGCAGCGGACTTGGAGATTCGGCCAGCACCGCGCC	1260
QY	1267	AAGATTCGAGGAGCTGTGCGCAAGCATTGTGCGGTGGGGCTTTCACACCCCGACAAAGAG	1320
Db	1261	AAGATTCGAGGAGCTGTGCGCAAGCATTGTGCGGTGGGGCTTTCACACCCCGACAAAGAG	1320
QY	1327	CACCAAGAGAGCCCCCTTCTGTGTGATGAGGCTTACGAGCTGCACCCCGACAAGTGAC	1380
Db	1321	CACCAAGAGAGCCCCCTTCTGTGTGATGAGGCTTACGAGCTGCACCCCGACAAGTGAC	1380
QY	1387	GTGCAACCCCATCGAGCTGCCCGGAAAGGAGAGCTGACCGTGAACGATCCAGAACTG	1440
Db	1375	GTGCAACCCCATCGAGCTGCCCGGAAAGGAGAGCTGACCGTGAACGATCCAGAACTG	1440
QY	1447	GTGCGCAAGCTGAATCTGGGCACGACGATTCACCCCGCATTCAGAGTGTGCGCAGCTGTGC	1500
Db	1435	GTGCGCAAGCTGAATCTGGGCACGACGATTCACCCCGCATTCAGAGTGTGCGCAGCTGTGC	1500
QY	1507	AAGCTGTGCGCGCGCCAAAGGCTGTGACCTGACCTGACATGTGCGCTTGAACCAAGAGGCGGAG	1560
Db	1495	AAGCTGTGCGCGCGCCAAAGGCTGTGACCTGACCTGACATGTGCGCTTGAACCAAGAGGCGGAG	1560
QY	1567	CTGGAGCTGGCCGAGAAACGCGAGATCTGTGCGGAGCCGCTGCACGGCGTGTACTAGAC	1620
Db	1555	CTGGAGCTGGCCGAGAAACGCGAGATCTGTGCGGAGCCGCTGCACGGCGTGTACTAGAC	1620





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Db      901  ||||| 9AGGTGAACAGGCGACCGACGCTTCTGGAGGTCGACGTCGAGCATCCCCCGCGC 960
Oy      967  ||||| GGGCTGAAGAAAGAAAGAGCGTGAACCGTGTGAAGTGGGCGACGCTTACTTCAACGCTG 1026
Db      961  ||||| GGGCTGAAGAAAGAAAGAGCGTGAACCGTGTGAAGTGGGCGACGCTTACTTCAACGCTG 1020
Oy      1027  ||||| CCCCTGAGCAGAGACTTCGCAAGTACAACCGCTTCAACATCCCAAGCATCAACAGAG 1086
Db      1021  ||||| CCCCTGAGCAGAGACTTCGCAAGTACAACCGCTTCAACATCCCAAGCATCAACAGAG 1080
Oy      1087  ||||| ACCCGGCGATCCGCTACCAAGTACAACGTCGCTCCCGAGGCTGGAAGGCGCGCCAGC 1146
Db      1081  ||||| ACCCGGCGATCCGCTACCAAGTACAACGTCGCTCCCGAGGCTGGAAGGCGCGCCAGC 1140
Oy      1147  ||||| ATCTTCAAGAGAGATGACCAAGATCTGAGACCTTCCGCGCCGCAACCCCGAGATC 1206
Db      1141  ||||| ATCTTCAAGAGAGATGACCAAGATCTGAGACCTTCCGCGCCGCAACCCCGAGATC 1200
Oy      1207  ||||| GTGATCTACAGAGCGCCCTGTACGTGGCAGCGACCTGAGATCGGCGAGCAGCGCGC 1266
Db      1201  ||||| GTGATCTACAGAGCGCCCTGTACGTGGCAGCGACCTGAGATCGGCGAGCAGCGCGC 1260
Oy      1267  ||||| AAGATCGAGAGCTGCGCAAGCACTGCTGCGCTGGGCTTCAACACCCCGCAAGAG 1326
Db      1261  ||||| AAGATCGAGAGCTGCGCAAGCACTGCTGCGCTGGGCTTCAACACCCCGCAAGAG 1320
Oy      1327  ||||| CACCGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1386
Db      1321  ||||| CACCGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1374
Oy      1387  ||||| GTGAGAGCCATCGAGCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1446
Db      1375  ||||| GTGAGAGCCATCGAGCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1434
Oy      1447  ||||| GTGGGCAAGCTGAATCTGGGCGACCGAGATCTACCCCGGATCAAGGTGGCGGAGCTGTGC 1506
Db      1435  ||||| GTGGGCAAGCTGAATCTGGGCGACCGAGATCTACCCCGGATCAAGGTGGCGGAGCTGTGC 1494
Oy      1507  ||||| AAGCTGCTGCGGCGCGCGCAAGGCGCGAGCATGTCGCGCTGACCGAGAGAGCGAG 1566
Db      1495  ||||| AAGCTGCTGCGGCGCGCGCAAGGCGCGAGCATGTCGCGCTGACCGAGAGAGCGAG 1554
Oy      1567  ||||| CTGAGACTGCGCGAGAGACCGCGAGATCTGCGCGAGCCGCTGACCGCGTGTACTAGAC 1626
Db      1555  ||||| CTGAGACTGCGCGAGAGACCGCGAGATCTGCGCGAGCCGCTGACCGCGTGTACTAGAC 1614
Oy      1627  ||||| CCCAGCAAGAGACTGTGGCGCGAGATCTAGAGACGCGCGCAAGCAAGTGTGACCTTACAG 1686
Db      1615  ||||| CCCAGCAAGAGACTGTGGCGCGAGATCTAGAGACGCGCGCAAGCAAGTGTGACCTTACAG 1674
Oy      1687  ||||| ATCTACAGAGAGCGCTTCAAGAACTTGAAGACCGGCAAGTACCGCAAGTGTGACCGCC 1746
Db      1675  ||||| ATCTACAGAGAGCGCTTCAAGAACTTGAAGACCGGCAAGTACCGCAAGTGTGACCGCC 1734
Oy      1747  ||||| CACACCAAGAGCGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1806
Db      1735  ||||| CACACCAAGAGCGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1794
Oy      1807  ||||| GTGATCTGGGCGAAGACCCCAAGTTCCGCTGCGCTGCGCATCAAGAAAGAGACTTGGAGAGC 1866
Db      1795  ||||| GTGATCTGGGCGAAGACCCCAAGTTCCGCTGCGCTGCGCATCAAGAAAGAGACTTGGAGAGC 1854
Oy      1867  ||||| TGGTGAACCGACCTAATCTGGAGGCGACCTGTATCCCGAGTGGAGAGTTCTGTAACACCCCC 1926
Db      1855  ||||| TGGTGAACCGACCTAATCTGGAGGCGACCTGTATCCCGAGTGGAGAGTTCTGTAACACCCCC 1914
Oy      1927  ||||| CCCCTGTAAGCTGTGTATCAAGCTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1986
Db      1915  ||||| CCCCTGTAAGCTGTGTATCAAGCTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1974
Oy      1987  ||||| TACGTGAGCGGCGCGCAACCGGAGAGCAAGATCGGCAAGGCGGCTTACGTGACCGAC 2046

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Db      1975  TACGTGAGCGGCGCGCAACCGCGAGACCAAGATCGGCAAGCGCGCTACGTGACCGAC 2034
Oy      2047  CCGGCGCGCGAGAGATGTGTAGGCTTGAACCGAGACCAACCAACCAAGAGACCGAGCTGAG 2106
Db      2035  CCGGCGCGCGAGAGATGTGTAGGCTTGAACCGAGACCAACCAACCAAGAGACCGAGCTGAG 2094
Oy      2107  GCGATCGAGCTGCGCTTCAAGAGACCGCGAGCGAGAGTGAACATGTGTGACCGAGCGAG 2166
Db      2095  GCGATCGAGCTGCGCTTCAAGAGACCGCGAGCGAGAGTGAACATGTGTGACCGAGCGAG 2154
Oy      2167  TACGCGCTGGCATCATCAAGCGCCAGCCGCAAGAGCGAGAGCGAGCTGTGAACCGAG 2226
Db      2155  TACGCGCTGGCATCATCAAGCGCCAGCCGCAAGAGCGAGAGCGAGCTGTGAACCGAG 2214
Oy      2227  ATCATCGAGCGCTGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2286
Db      2215  ATCATCGAGCGCTGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2274
Oy      2287  GGCATCGCGCGCAAGAGAGAGATGACAGAGCTGTGAGCAAGGAGATCGGCAAGGTGCTG 2346
Db      2275  GGCATCGCGCGCAAGAGAGAGATGACAGAGCTGTGAGCAAGGAGATCGGCAAGGTGCTG 2334
Oy      2347  TTCTTGAACCGCATGATGAGCGCGCATGTGATCTACAGTACATGAGACGACTGTACGTG 2406
Db      2335  TTCTTGAACCGCATGATGAGCGCGCATGTGATCTACAGTACATGAGACGACTGTACGTG 2394
Oy      2407  GGCAGCGCGCGCTTGAAGATGATTAAGCTTCCCGGAGCTTACGACCGGT 2457
Db      2395  GGCAGCGCGCGCTTGAAGATGATTAAGCTTCCCGGAGCTTACGACCGGT 2445

RESULT 10
US-10-190-435-9
; Sequence 9, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Yang
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Estrelita J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 9
; LENGTH: 3930
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: GagCompPolmut_C
US-10-190-435-9

Query Match      98.1%; Score 2415.6; DB 6; Length 3930;
Best Local Similarity 99.6%; Pred. No. 0;
Matches 2434; Conservative 0; Mismatches 4; Indels 6; Gaps 1;

Oy      14  TGGCCGAGGCGCATGAGCCGACCGACGCGCAACATCTGTAGAGAGCGCGCAACTTCA 73
Db      1487  TCGCCAGAGCGATGAGCCGACCGCGCACAGCGCCAAACATCTGTAGAGAGCGCGCAACTTCA 1546
Oy      74  AGGCGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGAGGCGCAATCGCGCGCA 133
Db      1547  AGGCGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGAGGCGCAATCGCGCGCA 1606
Oy      134  ACTGCGCGCGCGCGCGCAAGAGAGGCTGTGAAGTGTGCGGCAAGAGAGGCGCAACATGTA 193
Db      1607  ACTGCGCGCGCGCGCGCAAGAGAGGCTGTGAAGTGTGCGGCAAGAGAGGCGCAACATGTA 1666
Oy      194  AGGACTGACCGAGCGCGCAAGCGCAACTTCTTCCGCGAGAGACTGTGCGCTTCCCGAGGCA 253

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Db	1667	AGGACTGCACCGAGGCGCCAGGCTTAATTCTTCGGAGGAGACTTGGCTTTCCTCCCAAGGCA	1722
OY	254	AGGCCCCGAGTTCCCCAGCCAGCAAAACCGGCCAAGCCCCACAGCCGCGAGCTGC	313
Db	1727	AGGCCCGGAGTTTCCCCAGCGAGCAAGAACCGGCCCAAGAGCCCCACAGCCGCGAGCTGC	1788
OY	314	AGGTGCGGGCGACAAACCCCGCAGCGAGCCGGGCGCGAGGCCAGGACCTTGAATCT	373
Db	1787	AGGTGCGGGCGACAAACCCCGCAGCGAGCCGGGCGCGAGGCCAGGACCTTGAATCT	1846
OY	374	TCCCCAGATCAACCTGTGAGCAGCCGCCCTCTGTGATCAAGGTGGGCGCGCAGATCA	433
Db	1847	TCCCCAGATCAACCTGTGAGCAGCCGCCCTCTGTGATCAAGGTGGGCGCGCAGATCA	1906
OY	434	AGGAGCCCTGCTGACACCCGCGCGCAGACACCGTCTGAGAGAGATGAGCTTGCCTG	493
Db	1907	AGGAGCCCTGCTGACACCCGCGCGCAGACACCGTCTGAGAGAGATGAGCTTGCCTG	1966
OY	494	GCAAGTGAAGCCCAAGATGATCGCGCGCATCGCGCTTCAAGGTGCGCCAGTACG	553
Db	1967	GCAAGTGAAGCCCAAGATGATCGCGCGCATCGCGCTTCAAGGTGCGCCAGTACG	2022
OY	554	ACCGATCTCTGATCGAGATCTGCGGCGAAGAGCCATGCGCACCGTGCATATCGGCCCA	613
Db	2027	ACCGATCTCTGATCGAGATCTGCGGCGAAGAGCCATGCGCACCGTGCATATCGGCCCA	2086
OY	614	CCCCCGTGAACATCATCGCGCGCAACATGCTGACCCAGCTGGGCTGCACCCCTGAATTC	673
Db	2087	CCCCCGTGAACATCATCGCGCGCAACATGCTGACCCAGCTGGGCTGCACCCCTGAATTC	2146
OY	674	CCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAAGCCCGGATGAGACGGCCCAAG	733
Db	2147	CCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAAGCCCGGATGAGACGGCCCAAG	2206
OY	734	TGAAGCAATGGCCCTGACCCGAGGAGGAAGATGAAGGCCCTGACCGGCATCTGCGAGAGGA	793
Db	2207	TGAAGCAATGGCCCTGACCCGAGGAGGAAGATGAAGGCCCTGACCGGCATCTGCGAGAGGA	2266
OY	794	TGAGAAAGAGGGCAAGATCAACCAAGATCGGCCCGGAGAACCCCTACAAACCCCGCTGT	853
Db	2267	TGAGAAAGAGGGCAAGATCAACCAAGATCGGCCCGGAGAACCCCTACAAACCCCGCTGT	2322
OY	854	TGCGCATCAAGAAAGAGCAGACCAAGTGGCGCAAGCTGTGATCTTCCGCGAGCTGA	913
Db	2327	TGCGCATCAAGAAAGAGCAGACCAAGTGGCGCAAGCTGTGATCTTCCGCGAGCTGA	2386
OY	914	ACAAAGCGCAACCCAGGACTTCTTGGAGAGTGCAGCTGGGCAATCCCCAACCCCGCGGCTGA	973
Db	2387	ACAAAGCGCAACCCAGGACTTCTTGGAGAGTGCAGCTGGGCAATCCCCAACCCCGCGGCTGA	2446
OY	974	AGAAAGAGAGGCGGTGACCGGTGAGACGTGGGGAGCGCTACTTCAGCGGTGCGCCCTGG	1033
Db	2447	AGAAAGAGAGGCGGTGACCGGTGAGACGTGGGGAGCGCTACTTCAGCGGTGCGCCCTGG	2506
OY	1034	ACGAGAGCTTCCGCAAGTACACCGGCTTCAACCATCCCGCAGATCAACAAAGAGACCCCG	1093
Db	2507	ACGAGAGCTTCCGCAAGTACACCGGCTTCAACCATCCCGCAGATCAACAAAGAGACCCCG	2566
OY	1094	GCATTCGCTACAGATACAAAGTGTGCCCCAGGGCTGAAAGGGCAGCCCCAGCATCTTCC	1155
Db	2567	GCATTCGCTACAGATACAAAGTGTGCCCCAGGGCTGAAAGGGCAGCCCCAGCATCTTCC	2622
OY	1154	AGAGAGAGATGACCAAGATCCCTGAGAGCCCTTCCGGGCGCGCAACCCGAGATCGATGCT	1211
Db	2627	AGAGAGAGATGACCAAGATCCCTGAGAGCCCTTCCGGGCGCGCAACCCGAGATCGATGCT	2686
OY	1214	ACCAAGCCCCCTGTACGTGGGCAAGCACTTGAATGCGGCAGACCGCGCCAAGATCG	1273
Db	2687	ACCAAGCCCCCTGTACGTGGGCAAGCACTTGAATGCGGCAGACCGCGCCAAGATCG	2744
OY	1274	AGGAGCTGCGCAAGCACTTGCTGCGCTGGGCTTCAACCCCGCAACAAGAACCAAG	1333

Dp	2747	AGGAGCTGCGAAGACCTGCTGGCGTGGGCTTACCAACCCCGACAAGAAAGCACGGA	2806
Qy	1334	AGGAGCCCCCTTCTCTGTGGATGGGGCTACGAGCTGCACCCCGACAAGTGGACCTGTGCAGC	1393
Dp	2807	AGGAGCCCCCTTCTCTGTCCCAT-----CGAGCTGCACCCCGACAAGTGGACCGTGCAGC	2866
Qy	1394	CCATCGAGCTGCCCGAAGAAAGGAGAGCTGGACCGTGAACGACATCGCAAGAGCTGTGGGCA	1453
Dp	2861	CCATCGAGCTGCCCGAAGAAAGGAGAGCTGGACCGTGAACGACATCGCAAGAGCTGTGGGCA	2920
Qy	1454	AGCTGAACCTGGCGCAGCCAGATCTACCCCGGCATCAAGGTGCGCGACGTGTGCAGACTGC	1513
Dp	2921	AGCTGAACCTGGCGCGACGACATCTACCCCGGCATCAAGGTGCGCGACGTGTGCAGACTGC	2980
Qy	1514	TGCGCGCGCGCAAGCGCCCTTACCCGACATCGTCCCTTGCACCGAAGAGCCGAGCTGAGGC	1573
Dp	2981	TGCGCGCGCGCAAGCGCCCTTGCACCATCGTCCCTTGCACCGAAGAGCCGAGCTGAGGC	3040
Qy	1574	TGGCGCGAAGACCGGAGAGATCTCTTGGCGGAGCCCGGTGCACCGGGGTATCTAGAACCCGACGA	1633
Dp	3041	TGGCGCGAAGACCGGAGAGATCTCTTGGCGGAGCCCGGTGCACCGGGGTATCTAGAACCCGACGA	3100
Qy	1634	AGGACCTGTGGCGGAGATTCGAGAAAGCGAGGCGCACGACCACTGGACCTACAGATCTTACC	1693
Dp	3101	AGGACCTGTGTGGCGGAGATTCGAGAAAGCGAGGCGCACGACCACTGGACCTACAGATCTTACC	3160
Qy	1694	AGGAGCCCTTCAAGAACCTGAAAGACCGGCAAGTACGCCAAGATGGCACCGGCCACACCA	1753
Dp	3161	AGGAGCCCTTCAAGAACCTGAAAGACCGGCAAGTACGCCAAGATGGCACCGGCCACACCA	3220
Qy	1754	ACGAGCTGTAAACAGACTGACCGAGGCGCGTGCAGAAAGATGCGCATGGAAGGACATCGATCT	1813
Dp	3221	ACGAGCTGTAAACAGACTGACCGAGGCGCGTGCAGAAAGATGCGCATGGAAGGACATCGATCT	3280
Qy	1814	GGGGCAAGACCCCCAAAGTTTCGCGCTGCGCCATTCGAAAGAGAACCTTGGAGACCTGTGTGA	1873
Dp	3281	GGGGCAAGACCCCCAAAGTTTCGCGCTGCGCCATTCGAAAGAGAACCTTGGAGACCTGTGTGA	3340
Qy	1874	CGGACTACTGCGACAGGCAACCTGATATCCCGAGTGGAGATTGTGAAACACCCCCCTCTGG	1933
Dp	3341	CGGACTACTGCGACAGGCAACCTGATATCCCGAGTGGAGATTGTGAAACACCCCCCTCTGG	3400
Qy	1934	TGAAGCTGTGGTACAGAGCTGGAGAAAGGAGCCCATCATCTGGGCGCGAGACCTTCTACGTGG	3466
Dp	3401	TGAAGCTGTGTGGTACAGAGCTGGAGAAAGGAGCCCATCATCTGGGCGCGAGACCTTCTACGTGG	3522
Qy	1994	ACGGGCGCGGCAACCGCGGAGACCAAGATCGGCAAGGCGCGGTCACTGTGACCGACCGGAGCC	2053
Dp	3461	ACGGGCGCGGCAACCGCGGAGACCAAGATCGGCAAGGCGCGGTCACTGTGACCGACCGGAGCC	3522
Qy	2054	GGCAGAAAGATCGTGAAGCTCTGACCGGAGACCAACCAACAGAAAGACCGAGCTGACAGGCATCC	2113
Dp	3521	GGCAGAAAGATCGTGAAGCTCTGACCGGAGACCAACCAACAGAAAGACCGAGCTGACAGGCATCC	3580
Qy	2114	AGCTGGCCCTGCGAGGACAGCGGCGAGCGAGGTGAACATGTGACCGACAGCCAGTACGCCCC	2173
Dp	3581	AGCTGGCCCTGCGAGGACAGCGGCGAGCGAGGTGAACATGTGACCGACAGCCAGTACGCCCC	3640
Qy	2174	TGGGATCATATCAAGGCCCGACGCCCAACAGACCGAGAGCGAAGTGTGAACCAAGATCATTCG	2233
Dp	3641	TGGGATCATATCAAGGCCCGACGCCCAACAGACCGAGAGCGAAGTGTGAACCAAGATCATTCG	3700
Qy	2234	AGCAGCTGATCAAGAAAGGAGAAAGGTGTACTGAGCTGGGTATCCCGCCCAAGAGGACATCG	2293
Dp	3701	AGCAGCTGATCAAGAAAGGAGAAAGGTGTACTGAGCTGGGTATCCCGCCCAAGAGGACATCG	3766
Qy	2294	GCGGCAACGAGACGATCGACAGCTGTGTAGCAAGGCGATTCGCAAGGTCTGTTCTTCTGG	2353
Dp	3761	GCGGCAACGAGACGATCGACAGCTGTGTAGCAAGGCGATTCGCAAGGTCTGTTCTTCTGG	3820
Qy	2354	ACGGATCATATGGCGGCACTGTGTATCTTACAGTATCATGTGAAGACCTGTACCTTGGGACAGG	2413
Dp	3821	ACGGATCATATGGCGGCACTGTGTATCTTACAGTATCATGTGAAGACCTGTACCTTGGGACAGG	3880



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QY 1694 AGGAGCCCTTCAAGAACCTGAAAGACCGGCAAGTACCAAGATGGGCAACCGCCACACCA 1753
DB 3161 AGGAGCCCTTCAAGAACCTGAAAGACCGGCAAGTACCGCAAGATGGGCAACCGCCACACCA 3220
QY 1754 AGGAGCTGAGAGAGCTGACCGAGGCGGTGACAGAGATCGCATGAGAGCATCTGATCT 1813
DB 3221 AGGAGCTGAGAGAGCTGACCGAGGCGGTGACAGAGATCGCATGAGAGCATCTGATCT 3280
QY 1814 GGGGCAAGACCCCAAGTTCCGCTGCTCATTCAGAGAGAGACCTGGAGAGCTGTGGA 1873
DB 3281 GGGGCAAGACCCCAAGTTCCGCTGCTCATTCAGAGAGAGACCTGGAGAGAGCTGTGGA 3340
QY 1874 CGGACTGAGAGAGAGAGCTGATCCCGAGTGGGAGTGGTGAACAACCCCGCCCTGG 1933
DB 3341 CGGACTGAGAGAGAGAGCTGATCCCGAGTGGGAGTGGTGAACAACCCCGCCCTGG 3400
QY 1934 TGAAGCTGTGATCAGAGTGAAGAGAGAGCCATCATCGGCGCGAGACCTTCTACGTGG 1993
DB 3401 TGAAGCTGTGATCAGAGTGAAGAGAGAGCCATCATCGGCGCGAGACCTTCTACGTGG 3460
QY 1994 AGGAGCGCGCCCAACCGCCAGAGACCAAGATGGGCAAGGCGGCTTACGTGACCGGCGCC 2053
DB 3461 AGGAGCGCGCCCAACCGCCAGAGACCAAGATGGGCAAGGCGGCTTACGTGACCGGCGCC 3520
QY 2054 GGGCAGAGATCGTGAAGCTGACCGAGACCAACCAAGAGACCGAGCTGACAGGCGATCC 2113
DB 3521 GGGCAGAGATCGTGAAGCTGACCGAGACCAACCAAGAGACCGAGCTGACAGGCGATCC 3580
QY 2114 AGCTGGCCCTGAGAGACAGCGGAGCGAGAGTGAACATCGTGAACCGACAGCTGACGCC 2173
DB 3581 AGCTGGCCCTGAGAGACAGCGGAGCGGAGAGTGAACATCGTGAACCGACAGCTGACGCC 3640
QY 2174 TGGGCAATCATCAAGGCGCCAGCCGACAGAGAGAGAGAGAGCTGTGAACCAAGATCATG 2233
DB 3641 TGGGCAATCATCAAGGCGCCAGCCGACAGAGAGAGAGAGAGCTGTGAACCAAGATCATG 3700
QY 2234 AGCAGCTGATCAAGAGAGAGAGTGTACTGAGCTGGGTGCGCGCCAGAGGCGATCG 2293
DB 3701 AGCAGCTGATCAAGAGAGAGAGTGTACTGAGCTGGGTGCGCGCCAGAGGCGATCG 3760
QY 2294 GGGGCAAGAGAGATCGACCAAGCTGTGAGAGAGAGGATCGCAAGGTGCTGTTCTGG 2353
DB 3761 GGGGCAAGAGAGATCGACCAAGCTGTGAGAGAGAGGATCGCAAGGTGCTGTTCTGG 3820
QY 2354 AGGAGATGATGAGCGGAGATCGATCTTACAGTACATGAGACAGCTGTACGTGGGAGAG 2413
DB 3821 AGGAGATGATGAGCGGAGATCGATCTTACAGTACATGAGACAGCTGTACGTGGGAGAG 3880
QY 2414 GGGGCGCTAGATCATTAAGCTTCCGGGGCTAGACCGGT 2457
DB 3881 GGGGCGCTAGATCATTAAGCTTCCGGGGCTAGACCGGT 3924

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RESULT 12
US-10-190-435-11
; Sequence 11, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Beirelita J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT APPLICATION NUMBER: US/10/190,435
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 11
; LENGTH: 3930

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; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: GagComplPolymutline_C
US-10-190-435-11
Query Match 98.0%; Score 2414; DB 6; Length 3930;
Best Local Similarity 99.5%; Pred. No. 0;
Matches 2433; Conservative 0; Mismatches 5; Indels 6; Gaps 1;
QY 14 TGGCCGAGGCAATGAGAGGCGCACAGCGCCACATCTGATGAGGCGAGCACTTCA 73
DB 1487 TGGCCGAGGCAATGAGAGGCGCACAGCGCCACATCTGATGAGGCGAGCACTTCA 1546
QY 74 AGGCGCCCAAGGCGATCATCAAGTCTTCAATGCGGCAAGAGAGGCGCATCGCCGCA 133
DB 1547 AGGCGCCCAAGGCGATCATCAAGTCTTCAATGCGGCAAGAGAGGCGCATCGCCGCA 1606
QY 134 ACTGCGGCGCCCGCCAGAGAGAGGCTGTGAAAGTGGCGAGAGAGGCGCACAGATGA 193
DB 1607 ACTGCGGCGCCCGCCAGAGAGAGGCTGTGAAAGTGGCGAGAGAGGCGCACAGATGA 1666
QY 194 AGGACTGACCGAGCGCCAGAGGCACTTCTTCCGAGAGAGCTGGCTTCCCGGAGGCA 253
DB 1667 AGGACTGACCGAGCGCCAGAGGCACTTCTTCCGAGAGAGCTGGCTTCCCGGAGGCA 1726
QY 254 AGGCGCGGAGTTCGCCAGCGAGAGAACCGGCGCAAGCGCCACAGCGCGAGCTGC 313
DB 1727 AGGCGCGGAGTTCGCCAGCGAGAGAACCGGCGCAAGCGCCACAGCGCGAGCTGC 1786
QY 314 AGGTGCGGCGAGACCAACCGCCAGAGAGGCGCGGCGCGAGGCGAGGCGCACTTGAAT 373
DB 1787 AGGTGCGGCGAGACCAACCGCCAGAGAGGCGCGGCGCGAGGCGAGGCGCACTTGAAT 1846
QY 374 TCCTCCAGATCACTCTGTGAGAGCGCCCTCTGTGTAGCATCAAGTGGCGGCGAGATCA 433
DB 1847 TCCTCCAGATCACTCTGTGAGAGCGCCCTCTGTGTAGCATCAAGTGGCGGCGAGATCA 1906
QY 434 AGGAGGCGCTGTGAGACCGGCGCGAGAGACACCGTGTGAGAGAGATGAGACTGCGCG 493
DB 1907 AGGAGGCGCTGTGAGACCGGCGCGAGAGACACCGTGTGAGAGAGATGAGACTGCGCG 1966
QY 494 GCAAGTGAAGGCCAAGATGATCGAGCGGATCGGCGGCTTCAATCAAGTGGCGAGTACG 553
DB 1967 GCAAGTGAAGGCCAAGATGATCGAGCGGATCGGCGGCTTCAATCAAGTGGCGAGTACG 2026
QY 554 ACCAGATCTTGAATGAGATCTGCGGCAAGAGGCAATGAGACCGTGTGATCGGCGGCA 613
DB 2027 ACCAGATCTTGAATGAGATCTGCGGCAAGAGGCAATGAGACCGTGTGATCGGCGGCA 2086
QY 614 CCCCCGTGAACATCATCGGCGGCAAGATGAGACCGAGCTGAGACCGCTGAACTTCC 673
DB 2087 CCCCCGTGAACATCATCGGCGGCAAGATGAGACCGAGCTGAGACCGCTGAACTTCC 2146
QY 674 CCATGAGCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGCAATGAGCGGCCAAG 733
DB 2147 CCATGAGCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGCAATGAGCGGCCAAG 2206
QY 734 TGAAGCAAGTGGCGCTTGAACCGAGAGAGATCAAGGCGCTTGAACCGCCATCTGCGAGAG 793
DB 2207 TGAAGCAAGTGGCGCTTGAACCGAGAGAGATCAAGGCGCTTGAACCGCCATCTGCGAGAG 2266
QY 794 TGGAGAGAGGAGGAGATCAACAGATCGGCGCGAGAGACCGCTTGAACACCGCGGT 853
DB 2267 TGGAGAGAGGAGGAGATCAACAGATCGGCGCGAGAGACCGCTTGAACACCGCGGT 2326
QY 854 TGGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 913
DB 2327 TGGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2386
QY 914 ACAAGCGAGACCGAGAGCTTGTGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 973
DB 2387 ACAAGCGAGACCGAGAGCTTGTGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 2446

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QY 974 AGAAGAAAGAGCTGACCGTGTGAGAGTGGCGACGCTTACCTGACGTGCTGG 1033  
 DB AGAAGAAAGAGCTGACCGTGTGAGAGTGGCGACGCTTACCTGACGTGCTGG 2506  
 QY 1034 ACAGAGACTTCCGCAAGTACACGCTTACCTGACGTGCTGG 1093  
 DB ACAGAGACTTCCGCAAGTACACGCTTACCTGACGTGCTGG 2566  
 QY 1094 GATTCGCTACCAAGTACCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 1153  
 DB GATTCGCTACCAAGTACCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 2626  
 QY 1154 AGAGACAGTACCAAGTACCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 1213  
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 QY 1214 ACCAGGCGCTGACCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 1273  
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 QY 1274 AGAGAGCTGCGCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 1333  
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 QY 1394 CCATCGAGCTGCGCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 1453  
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 QY 1514 TGCGCGGCGCGCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 1573  
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 DB GGGGCGAAGCGCGCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 3340  
 QY 1874 CCGACTGTGTGCGCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 1933  
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 QY 1934 TGAAGCTGTGTGCGCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 1993  
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 QY 1994 ACAGGCGCGCGCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 2053  
 DB ACAGGCGCGCGCAAGTGTGCTGACGCTGAGAGGCGACGCTGACCTTCC 3520

QY 2054 GGCAGAGATGTGAGCTGACCGAGACCAACCAAGAGAGAGTGTGACGAGCCATTC 2113  
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 QY 2174 TGGGCAATCATCAGGCGCGAGCGCGACGAGTGAACATCTGACCGACGAGTACGCC 2233  
 DB TGGGCAATCATCAGGCGCGAGCGCGACGAGTGAACATCTGACCGACGAGTACGCC 3700  
 QY 2234 AGCAGCTGTCAAGAGAGAGAGTGTGACCTGAGCTGTGCGCGCGACCAAGGCGATCG 2293  
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 QY 2294 GCGGCAACGAGAGATGTGACCAAGTGTGAGCAAGGCGATCGGCAAGTGTGCTTCC 2353  
 DB GCGGCAACGAGAGATGTGACCAAGTGTGAGCAAGGCGATCGGCAAGTGTGCTTCC 3820  
 QY 2354 ACAGCATCATGAGCGGCGATGTGATCTTACCAAGTGTGAGCAAGTGTGCTTCC 2413  
 DB ACAGCATCATGAGCGGCGATGTGATCTTACCAAGTGTGAGCAAGTGTGCTTCC 3880  
 QY 2414 GCGGCGCTGTGATGTGATTAAGCTTCCGCGGCTGAGCAAGGCT 2457  
 DB GCGGCGCTGTGATGTGATTAAGCTTCCGCGGCTGAGCAAGGCT 3924

RESULT 13  
 US-10-190-435-58  
 ; Sequence 58, Application US/10190435  
 ; Publication No. US20030143248A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: ZUR MEGEDE, Jan  
 ; APPLICANT: BARNETT, Susan W.  
 ; APPLICANT: LIAN, Ying  
 ; APPLICANT: ENGELBRECHT, Susan  
 ; APPLICANT: VAN RENSBURG, Estrelita J.  
 ; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
 ; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
 ; FILE REFERENCE: P18133.003 / 2302-18133  
 ; CURRENT APPLICATION NUMBER: US/10/190,435  
 ; NUMBER OF SEQ ID NOS: 319  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 58  
 ; LENGTH: 5184  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURES:  
 ; OTHER INFORMATION: Description of Artificial Sequence: TatRevNefgagCpolina C  
 US-10-190-435-58

Query Match 98.0%; Score 2414; DB 6; Length 5184;  
 Best Local Similarity 99.5%; Pred. No. 0;  
 Matches 2433; Conservative 0; Mismatches 5; Indels 6; Gaps 1;

QY 14 TGGCGGAGGCGCAGAGCGCGCAAGTGTGACGCTGAGAGGCGACGCTGACCTTCC 73  
 DB TGGCGGAGGCGCAGAGCGCGCAAGTGTGACGCTGAGAGGCGACGCTGACCTTCC 2800  
 QY 74 AGGCGCGCGCGCATCATCAAGTGTGACGCTGAGAGGCGACGCTGACCTTCC 133  
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 QY 134 ACTGCGCGCGCGCGCAAGAGGCTGTGAGAGTGTGAGAGGCGCGCAAGAGTGA 193  
 DB ACTGCGCGCGCGCGCAAGAGGCTGTGAGAGTGTGAGAGGCGCGCAAGAGTGA 2920  
 QY 194 AGAGCTGACCGAGCGCGCAAGTGTGAGAGGCGCGCAAGTGTGAGAGGCGCGCA 253  
 DB AGAGCTGACCGAGCGCGCAAGTGTGAGAGGCGCGCAAGTGTGAGAGGCGCGCA 2980

254 AGGCGCGAGTTCCCAAGCAGAGAAACCGGCCAACAGCCCCCAACAGCCCGAGCTGC 313  
2981 AGGCCCGAGGTTCCTCCAGCGAGCAAAACCGGCCAACAGCCCCCAACAGCCCGAGCTGC 3040  
314 AGGTGCGCGGCAAAACCCCGCAGAGAGCGCGGCCAGAGCCAGAGGCAACCTGAACT 373  
3041 AGGTGCGCGGCAAAACCCCGCAGAGAGCGCGGCCAGAGCCAGAGGCAACCTGAACT 3100  
374 TCCCCAGATCACTCCGTGCGAGCGCCCTGTGTGATCAAGGTGGCGCGCAAGTCA 433  
3101 TCCCCAGATCACTCCGTGCGAGCGCCCTGTGTGATCAAGGTGGCGCGCAAGTCA 3160  
434 AGGAGGCGCTGTGCAACCGCGCGCAAGCAACCGTGTGAGAGAGATGAGCTGCCG 493  
3161 AGGAGGCGCTGTGCAACCGCGCGCAAGCAACCGTGTGTGAGAGAGATGAGCTGCCG 3220  
494 GGAAGTGAAGCCCAAGATGATCGCGGATCGCGCGCTTCAATCAAGTGGCGCGATAG 553  
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554 ACCAATCTTGATCGAGATCTGCGGCAAGAGCCCATCGGCAACCGTGTGATCGCGCCA 613  
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Search completed: December 31, 2005, 03:58:02  
 Job time : 1734 secs

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GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: December 30, 2005, 08:57:15 ; Search time 295.667 Seconds  
(without alignments)  
4366.995 Million cell updates/sec

Title: US-09-610-313b-31

Perfect score: 2463  
Sequence: 1 gtcagcagccaccatggtcgca.....gggctagcagcggtgaatcc 2463

Scoring table: IDENTITY NUC  
Gapop 10.0 , Gapext 1.0

Searched: 4172979 seqs, 262114271 residues

Total number of hits satisfying chosen parameters: 8345958

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database:

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES:

Result No.	Score	Query Match	Length DB	ID	Description
1	1316	53.4	1689	US-10-507-928-9	Sequence 9, Appli
2	1316	53.4	1689	US-10-507-928-11	Sequence 11, Appli
3	1316	53.4	1689	US-11-029-465-9	Sequence 9, Appli
4	1316	53.4	1689	US-11-029-465-11	Sequence 11, Appli
5	1106.8	44.9	9719	US-11-042-988-10	Sequence 10, Appli
6	156.2	6.3	17207	US-10-519-531-8	Sequence 8, Appli
7	154.6	6.3	1503	US-10-519-531-2	Sequence 2, Appli
8	141.4	5.7	1503	US-10-507-928-3	Sequence 3, Appli
9	141.4	5.7	1503	US-11-029-465-3	Sequence 3, Appli
10	103.4	4.2	2736	US-10-858-730-38	Sequence 38, Appli
11	102.6	4.2	3513	US-10-858-730-142	Sequence 142, App
12	88.2	3.6	37507	US-10-522-037-2	Sequence 2, Appli
13	85.2	3.5	2010	US-11-058-727-5	Sequence 5, Appli
14	85.2	3.5	2010	US-11-108-389-5	Sequence 5, Appli
15	80.6	3.3	1434	US-11-075-185-57	Sequence 57, Appli
16	80.6	3.3	14172	US-11-075-185-2	Sequence 2, Appli
17	73.6	3.0	1115	US-11-143-986-7	Sequence 7, Appli
18	71.4	2.9	1386	US-11-075-185-55	Sequence 55, Appli
19	71.4	2.9	8730	US-11-087-100-1	Sequence 1, Appli
20	71.4	2.9	8730	US-11-087-084-1	Sequence 1, Appli
21	71.4	2.9	8730	US-11-087-085-1	Sequence 1, Appli
22	71.4	2.9	3711	US-10-873-528-31	Sequence 32, App
23	70.6	2.9	2376	US-11-056-621-3	Sequence 3, Appli

24	66.8	2.7	1590	US-10-858-730-162	Sequence 162, App
25	66.8	2.7	1593	US-10-858-730-138	Sequence 138, App
26	66.6	2.7	765	US-11-075-185-50	Sequence 50, Appli
27	66.6	2.7	864	US-11-179-411-26	Sequence 26, Appli
28	66.6	2.7	864	US-11-175-766-26	Sequence 26, Appli
29	66.6	2.7	14172	US-11-075-185-2	Sequence 2, Appli
30	62.8	2.5	3408	US-10-858-730-40	Sequence 40, Appli
31	62.4	2.5	3832	US-10-821-234-99	Sequence 99, Appli
32	62.2	2.5	8651	US-10-432-483-48	Sequence 48, Appli
33	61.8	2.5	506	US-11-000-463-219	Sequence 219, App
34	61.8	2.5	11686	US-11-143-980-1	Sequence 1, Appli
35	61.6	2.5	1690	US-10-667-295-204	Sequence 204, App
36	61.6	2.5	3626	US-10-821-234-245	Sequence 245, App
37	61.6	2.5	8645	US-11-096-051-9	Sequence 7, Appli
38	61.6	2.5	8657	US-11-096-051-7	Sequence 11, Appli
39	61.4	2.5	1119	US-11-143-980-11	Sequence 170, App
40	61.2	2.5	1161	US-10-858-730-170	Sequence 58, Appli
41	60.4	2.5	6264	US-11-075-185-58	Sequence 1, Appli
42	60.4	2.5	7869	US-11-075-185-1	Sequence 1, Appli
43	60.2	2.4	7786	US-11-096-051-3	Sequence 3, Appli
44	60.2	2.4	8362	US-11-096-051-1	Sequence 1, Appli
45	59.8	2.4	6360	US-11-056-470-2	Sequence 2, Appli

#### ALIGNMENTS

RESULT 1  
US-10-507-928-9  
Sequence 9, Application US/10507928  
Publication No. US20050266024A1  
GENERAL INFORMATION:  
APPLICANT: POWDERED LIMITED AND GLAXO GROUP LIMITED  
TITLE OF INVENTION: ADJUVANT  
FILE REFERENCE: N.88232B GCM  
CURRENT APPLICATION NUMBER: US/10/507,928  
CURRENT FILING DATE: 2004-09-17  
NUMBER OF SEQ ID NOS: 12  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 9  
LENGTH: 1689  
TYPE: DNA  
ORGANISM: Artificial sequence  
FEATURES:  
OTHER INFORMATION: nucleotide sequence of RT insert of p7077-RT3  
US-10-507-928-9

Query Match 53.4%; Score 1316; DB 6; Length 1689;  
Best Local Similarity 86.9%; Pred. No. 1.1e-204;  
Matches 1461; Conservative 0; Mismatches 215; Indels 6; Gaps 1;  
QY 672 CCCCATCGCCCATCGAGACCGTCCCGTGAAGCTGAAGCCCGCATGACGCGCCCA 731  
DB 6 CCCCATCGTCCCATCGAGACCGTCCCGTGAAGCTGAAGCCCGCATGACGCGCCCA 65  
QY 732 GGTGACGAGTGGCCCTGACCGAGAGAGATGAAGCCCTGACCCCATGCGAGGA 791  
DB 6 GGTGACGAGTGGCCCTGACCGAGAGAGATGAAGCCCTGAGAGATGACCGGA 125  
QY 792 GATGAGAAAGAGGAGCAATGACCAAGATCGGCGCCGAGAACCCCTACACACCCCGT 851  
DB 126 GATGAGAAAGAGGAGCAATGACCAAGATCGGCGCTGAGAACCCCTACACACCCCGT 185  
QY 852 GTTCGCGCATGAGAGAGAGCAAGACCAAGTGGCGCAAGCTGTGATCTTCCGAGCT 911  
DB 186 GTTCGCGCATGAGAGAGAGCAAGACCAAGTGGCGCAAGCTGTGATCTTCCGAGCT 245  
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DB 246 GAAAGAGCGACCGAGACTTGTGGAGGTGCAAGTGGCATGCCCAACCCGCGAGCT 305  
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Db      546 CTAACAGTACATGAGAGACTGTATCGTGGCTTGACCTGGAATCGGGCAACATCGCAC 605
Qy      1266 CAAGATCGAGAGCTGCGCAAGCACCTGTGCGCTGAGGCTTCAACACCCCGACAAAGAA 1325
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Qy      2346 GT 2347
Db      1686 GT 1687

RESULT 2
US-10-507-928-11
; Sequence 11, Application US/10507928
; Publication No. US2005026024A1
; GENERAL INFORMATION:
; APPLICANT: POWDERMED LIMITED AND GLAXO GROUP LIMITED
; TITLE OF INVENTION: ADJUVANT
; FILE REFERENCE: N.88232B GCW
; CURRENT APPLICATION NUMBER: US/10/507,928
; CURRENT FILING DATE: 2004-09-17
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 11
; LENGTH: 1689
; TYPE: DNA
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: nucleotide sequence of the coding insert in p731-RT3
US-10-507-928-11

Query Match      53.4%; Score 1316; DB 6; Length 1689;
Best Local Similarity 86.9%; Pred. No. 1,1e-204;
Matches 1461; Conservative 0; Mismatches 215; Indels 6; Gaps 1;

Qy      672 CCCCATCAGCCCCCATCTGAGACCTGTGCCGTGAAGCTGAAGCCCGCATGAGCGCCCAA 731
Db      6 CCCCATCAGTCCCATCTGAGACCTGTGCCGTGAAGCTGAAGCCCGCATGAGCGCCCAA 65
Qy      732 GGTGAAGCAGTGGCCCTGACCGAGGAGAAATCAAGGCCCTGACCGCCATCTGCGAAGGA 791
Db      66 GGTGAAGCAGTGGCCCACTCAAGAGAGAAATCAAGGCCCTGTGTGAGATCTGACCGGA 125
Qy      792 GATGAGAGAGAGGCAAGATCAACAAATCGGCCCCGAGAAACCCCTTACAAACACCCCGT 851
Db      126 GATGAGAGAGAGGCGCAAGATCAAGCAAGATCGGCGCTGAGAAACCCATACAAACCCCGT 185
Qy      852 GTTCCCATCAAGAAAGAGAGACGACCAAGTGGCGGCAAGCTGTGTGAACCTTCCGAGACT 911
Db      186 GTTCCCATCAAGAAAGAGAGACGACCAAGTGGCGGCAAGCTGTGTGAATTTCCGAGAGCT 245
Qy      912 GAAACAAGCCACCAAGACATTTGTGGAGGTGAGAGCTGGGCAATCCCAACCCGCGGCGCT 971
Db      246 GATTAAGCGAGCCAGAGATTTGTGGAGGTTCAGAGCTGGGCAATCCCAATCCGCGGCGCT 305
Qy      972 GAAAGAGAGAGAGAGGTGACCGTGTGAGAGTGGGCGAGCGCTTACTTGAAGGTGCCCT 1031
Db      306 GAAAGAGAGAGAGAGGTGACCGTGTGAGAGTGGGCGAGCGCTTACTTGAAGGTGCCCT 365
Qy      1032 GAGACGAGACTTCCGCAAGTACACCGCTTCAACATCCCAAGCAACAAAGAGACCC 1091
Db      366 GAGACGAGACTTAAAGTACACCGCCCTTCAACATCCCAAGCAACAAAGAGACCC 425
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QY 1092 CGGCATCCGCTACAGTACCAAGTGTGCCCCAGGGCTGGAAGGCGACCCGACATCTT 1151  
 Db 426 TGGCATTCAGATTCAGTACAGGTCTCCCGAGGGCTGGAAGGGCTCTCCGACATTT 485  
 QY 1152 CCAGAGCAGCATGACCAAGATCTTGAAGCCCTTCCGCGCCCGACACCCGGAATGTGT 1211  
 Db 486 CCAGAGCTTCATGACCAAGATCTTGAAGCCCTTCCGAGAGAGAACCCGGAATGTGT 545  
 QY 1212 CTAACA-----GGCCCCCTTGAAGTGGGAGCGGAGCTGAGATCGGAGACCGCGC 1265  
 Db 546 CTAACCAATACATGAGACCTTGAAGTGGGCTTGAAGTGGGAGATCGGAGACCGC 605  
 QY 1266 CAGATTCAGAGAGCTGCGAGACCTGTGCGCTGCGGCTTCAACCCCGCAGAGAA 1325  
 Db 606 GAAAGATTGAGAGCTGAGGAGCATCTGTGAGATGGGGCTGACCATCCGAGCAAGAA 665  
 QY 1326 GCAACCAAGAGAGCCCTTCTGTGTGATGGGCTTACGAGCTGACACCCGAGCAAGTGAC 1385  
 Db 666 GCAACCAAGAGAGCCCTTCTGTGTGATGGGCTTACGAGCTGACACCCGAGCAAGTGAC 725  
 QY 1386 CGTGAGCCCATTCGAGCTGCGAGAGAGAGAGCTGACCGTGAACGACATCCAGAGCT 1445  
 Db 726 CGTGAGCCCATTCGAGCTGCGAGAGAGAGAGCTGACCGTGAACGACATCCAGAGCT 785  
 QY 1446 GGTGGGCAAGCTGAACTGGGCGCAGCAGATCTACCCCGCATCAGGTGGCCAGCTGT 1505  
 Db 786 GGTGGGCAAGCTGAACTGGGCGCAGCAGATCTACCCCGCATCAGGTGGCCAGCTGT 845  
 QY 1506 CAGCTGTGCGCGGCGCCAGAGCCCTTGAACGACATGTGCCCCCTGAACGAGAGCCGA 1565  
 Db 846 CAGCTGTGCGCGGCGCCAGAGCCCTTGAACGACATGTGCCCCCTGAACGAGAGCCGA 905  
 QY 1566 GCTGAGAGCTGCGCGAGAACCGCGAGATCTGCGCGAGCCCGCTGACAGGCTGTACGA 1625  
 Db 906 GCTGAGAGCTGCGCGAGAACCGCGAGATCTGCGCGAGCCCGCTGACAGGCTGTACGA 965  
 QY 1626 CCCCAAGAGAGCTGTGCGCGAGATCTGCGCGAGCCCGCTGACAGGCTGTACGA 1685  
 Db 966 CCCCAAGAGAGCTGTGCGCGAGATCTGCGCGAGCCCGCTGACAGGCTGTACGA 1025  
 QY 1686 GATCTACAGAGAGCCCTTCAAGAACTGAAACCGCGCAAGTACGCGCAAGTGGCACCC 1745  
 Db 1026 GATCTACAGAGAGCCCTTCAAGAACTGAAACCGCGCAAGTACGCGCAAGTGGCACCC 1085  
 QY 1746 CCAACCAAGAGAGTGAAGAGCTGACCGAGCGCTGCAAGAGATGCGCAATGAGAGAT 1805  
 Db 1086 CCAACCAAGAGAGTGAAGAGCTGACCGAGCGCTGCAAGAGATGCGCAATGAGAGAT 1145  
 QY 1806 CGTATCTGGGAGAGAGCCCAAGATCTGCGCTGCGCATCCAGAGAGAGCTTGGAGAC 1865  
 Db 1146 CGTATCTGGGAGAGAGCCCAAGATCTGCGCTGCGCATCCAGAGAGAGCTTGGAGAC 1205  
 QY 1866 CTGTGTGAGAGAGCTGAGAGGCGCACCTGAGTCCCGAGTGGAGATTCTGTAAACCCC 1925  
 Db 1206 GTGTGTGAGAGAGCTGAGAGGCGCACCTGAGTCCCGAGTGGAGATTCTGTAAACCCC 1265  
 QY 1926 CCCCCCTGTGAGAGCTGTGTGATCCAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAG 1985  
 Db 1266 TCCCTGTGTGAGAGAGCTGTGTGATCCAGCTGAGAGAGAGAGAGAGAGAGAGAGAG 1325  
 QY 1986 CTAAGTGAAG 2045  
 Db 1326 CTAAGTGAAG 1385  
 QY 2046 CCGGAG 2105  
 Db 1386 CCGGAG 1445  
 QY 2106 GGGCATCAG 2165  
 Db 1446 GGGCATCAG 1505

QY 2166 GTAGCCGCTGAGCATCATCAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2225  
 Db 1506 GTAGCCGCTGAGCATCATCAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1565  
 QY 2226 GATCATCAG 2285  
 Db 1566 GATCATCAG 1625  
 QY 2286 GGGCATCAG 2345  
 Db 1626 GGGCATCAG 1685  
 QY 2346 GT 2347  
 Db 1686 GT 1687

RESULT 3  
 US-11-029-465-9  
 ; Sequence 9, Application US/11029465  
 ; Publication No. US20050256070A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Braum, Ralph P.  
 ; APPLICANT: Thomsen, Lindy  
 ; APPLICANT: Van-Wely, Catherine  
 ; APPLICANT: Rtl, Peter  
 ; TITLE OF INVENTION: Adjutant  
 ; FILE REFERENCE: 033267-015  
 ; CURRENT APPLICATION NUMBER: US/11/029,465  
 ; NUMBER OF SEQ ID NOS: 12  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 9  
 ; LENGTH: 1689  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; OTHER INFORMATION: nucleotide sequence of RT insert of p7077-RT3  
 ; US-11-029-465-9

Query Match 53.4%; Score 1316; DB 7; Length 1689;  
 Best Local Similarity 86.9%; Pred. No. 1.1e-204;  
 Matches 1461; Conservative 0; Mismatches 215; Indels 6; Gaps 1;

QY 672 CCCCATCAGCCCATCAG 731  
 Db 6 CCCCATCAGCCCATCAG 65  
 QY 732 GGTGAAG 791  
 Db 66 GGTGAAG 125  
 QY 792 GATGAG 851  
 Db 126 GATGAG 185  
 QY 852 GTTCGATCAG 911  
 Db 186 GTTCGATCAG 245  
 QY 912 GAACAG 971  
 Db 246 GAACAG 305  
 QY 972 GAAG 1031  
 Db 306 GAAG 365  
 QY 1032 GAG 1091  
 Db 366 GAG 425  
 QY 1092 CGGCATCCGCTACAGTACCAAGTGTGCGCGCAGGCTGGAAGGCGAGGCCACAGATCTT 1151



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Db      426 TGGGATTCAGATATCAAGTCAACGCTCTCCCAAGGGCTGGAAGGGGTCTCCCGCATTTT 485
Qy      1152 CCAAGACAGCATGACCAAGATCTTGAGGCTTCGCGCCCGCAACCCCGAATGTGAT 1211
Db      486 CCAAGAGCTTCATGACCAAGATCTTGAGGCTTCGCGCGAAGAACCCCGAATGTGAT 545
Qy      1212 CTAACA-----GGCCCCCTTGTAGGTGGGAGGCGACTGGAGATGGGCAAGCGGCG 1265
Db      546 CTAACAGTACATGAGAGACCTGTACGTGGGCTGTGACCTGGAAATCGGCAAGATGCGAC 605
Qy      1266 CAAGATCGAGAGCTGCGCAAGACCTGTGCGCTGCGGCTTCAACACCCCGCAAGAA 1325
Db      606 GAAAGATTGAGAGCTGAGGACAGATCTGTGAGATGGGGCTGTGACCATCCGGAAGAA 665
Qy      1326 GCAACCAAGAGAGGCCCCCTTCTGTGTGATGGGCTTACAGCTGACACCCCGCAAGTGGAC 1385
Db      666 GCATCGAAGAGAGGCCCCCATCTCTGTGTGATGGGCTTACAGCTTCAATCCGGAAGTGGAC 725
Qy      1386 CGTGACGCCCATCGAGCTGCCGGAAGAGAGAGCTGGAACCTGTGAACGATCGAAGAGCT 1445
Db      726 CGTGACGCCCATCTGTCTCTCCCGAAGAGAGAGCTGGAACGATCGAAGAGCT 785
Qy      1446 GGTGGGCAAGCTGAATCTGGGCGCAAGCGAATCTAACCCCGCATCAAGTGGCGCAAGCTGTG 1505
Db      786 GGTGGGCAAGCTGAATCTGGGCTTACAGATCTTATCCCGGAGTCAAGTGGCGCAAGCTGTG 845
Qy      1506 CAAGCTGTGCGCGGCGCAAGGCTTGAACCGAATCGTGCCCTGTGACCGGAAGAGCGCA 1565
Db      846 CAAGCTGTGCGCGGCGCAAGGCTTGAACCGAATCGTGCCCTGTGACCGGAAGAGCGCA 905
Qy      1566 GCTGAGAGCTGCGCGGAGAACCGGAGATCTGTGCGCGAGCCCGTGTGACAGGCTGTGATCA 1625
Db      906 GCTGAGAGCTGCGCGGAGAACCGGAGATCTGTGAGAGAGCCCGTGTGACAGGCTGTGATCA 965
Qy      1626 CCCCAAGCAAGAGCTGTGTGCGCGAGATCTGAGAGAGGCGCAAGCAAGTGGACCTTACCA 1685
Db      966 CCCCTCAAGAGAGCTGTATGCGGAAATCCAGAAAGAGGCGCAAGTGGACATGACATCA 1025
Qy      1686 GATCTTACAGAGAGCTTCAAGAACTTGAAGAACCGGCAAGTACGCCAATGGCGACCGC 1745
Db      1026 GATTTTACAGAGAGCTTCAAGAACTTGAAGAACCGGCAAGTACGCCAATGGCGACCGC 1085
Qy      1746 CCAACACCAAGAGCTGTGAGAGAGCTGACCGAGGCGGTGTGAGAGATCGCATGGAGAGCAT 1805
Db      1086 CCAACACCAAGAGTGTAGAGAGCTGTGACCGAGGCGGTGTGAGAGATCAAGACGATGCTCAT 1145
Qy      1806 CGTGATCTGTGGGCAAGACCCCAAGTTCCGCTGCTGCCATTCAGAAAGAGACTTGGGAGAC 1865
Db      1146 CGTGATCTGTGGGGAAGACACCCAAAGTTCAAGCTGCTATTCAGAAAGAGACTTGGGAGAC 1205
Qy      1866 CTGTGTGAGACCGACTACTGTGAGAGGCTGATGCCGAGTGGAGATTTGTGTAAACCCG 1925
Db      1206 GTGTGTGAGACCGAATATTGTGAGAGGCTGATGGATTTCCGAGTGGAGATTTGTGTATCA 1265
Qy      1926 CCCCCGTGTGAGAGCTGTGTGATCAAGCTGAGAGAGAGGCCCATCATGGGCGCGAGACCTT 1985
Db      1266 TCTCTGTGTGAGAGCTGTGTGATCAAGCTGAGAGAGAGGCCCATGTGTGGCGCGAGACATT 1325
Qy      1986 CTAACGTGAGACGGGCGCGCAACCGACGAGACCAAGATCGGCAAGGCGGCTTACGTGACCG 2045
Db      1326 CTAACGTGAGACGGGCGCGCAACCGACGAGAACAAAAGCTCGGGAAGCGGGGTACGTGAC 1385
Qy      2046 CCGGGGCGCGGCAAGAAATGTGTGAGCTGACCGAGACCAACCAAGAAAGCGAGCTGTGAC 2105
Db      1386 CCGGGGCGCGGCAAGAAAGTGTGTGACCTGTGACCGACCAACCAAGAAAGCGAGCTGTGAC 1445
Qy      2106 GGCATCTGAGCTGTGCGCTGTGAGAGAGCGGCGAGCGGTGAACATGTGTGACCGACGACCA 2165
Db      1446 GGCATCTGATCTGTGCTTCTGAGAGCTTCGGGCTGTGAGGTGAACATGTGTGACGAGCGCA 1505
Qy      2166 GTACGCGCTGTGCGCATCTCAAGGCTCCAGCGCGCAAGAGCGAGAGCGAGCTGTGTGAACCA 2225

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Db      1506 GTACGCGCTGTGGCATTAATTCAGGCGCCAGCCGAGCCAGTCCGAGAGCAACTGTGTGAACCA 1565
Qy      2226 GATTCATCGAGAGAGCTGATTCAGAGAGAGAGGTGTACCTGAGCTGGGTGTCGCCGCCACA 2285
Db      1566 GATTCATCGAGAGAGCTGATTCAGAGAGAGAGGTGTACCTGAGCTGGGTGTCGCCGCCACA 1625
Qy      2286 GGGCATCGGCGCAACGAGCAGATGACAGACAGCTGTGTGAGCAAGGCGATCCGCAAGTGTCT 2345
Db      1626 GGGCATTTGGCGCAACGAGCAGAGCTGTGAGAGTGTGAGAGGAGTTAAGAAAGGTGTCT 1685
Qy      2346 GT 2347
Db      1686 GT 1687

RESULT 4
US-11-029-465-11
; Sequence 11, Application US/11029465
; Publication No. US20050256070A1
; GENERAL INFORMATION:
; APPLICANT: Thomsen, Ralph P.
; APPLICANT: Thomsen, Lindy
; APPLICANT: Van-Wely, Catherine
; APPLICANT: Rtl, Peter
; TITLE OF INVENTION: Adjuvant
; FILE REFERENCE: 033267-015
; CURRENT APPLICATION NUMBER: US/11/029,465
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 1689
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: nucleotide sequence of the coding insert in
; US-11-029-465-11

Query Match      53.4%; Score 1316; DB 7; Length 1689;
Best Local Similarity 86.9%; Pred. No. 1,1e-204;
Matches 1461; Conservative 0; Mismatches 215; Indels 6; Gaps 1;

Qy      672 CCCCATCAGCCCCCATTCAGAGACCGTGCCCGTGAAGCTGAAGCCCGCATGAGCGCCCA 731
Db      6 CCCCATCAGTCCCATTCAGAGACCGTGCCCGTGAAGCTGAAGCCCGGATGAGCGCCCA 65
Qy      732 GGTGAAGCAGTGAGCCCTGTGACCGGAGAGAAATCAAGGCTGTGACCGGCATCTGTGAGGA 791
Db      66 GGTCAAGCAGTGAGCCCATCTCAACGAGAGAAATCAAGGCTGTGTGTGAGATCTGTGACCGA 125
Qy      792 GATGTGAAGAGAGGCGCAAGATCAACCAAGTCCGCCCGGAAACCTCTAACAACCCCGCT 851
Db      126 GATGTGAAGAGAGGCGCAAGATCAACCAAGTCCGCCCGTGTGAAGAACCTCTAACAACCCCGCT 185
Qy      852 GTTGTGCATCAAGAGAGAGAGCAGCAACCAAGTGGCGCAAGCTGTGTGAATTCTGTGCGAGCT 911
Db      186 GTTGTGCATCAAGAGAGAGAGCAGCAACCAAGTGGCGCAAGCTGTGTGAATTCTGTGCGAGCT 245
Qy      912 GAAACAAGCGCAACCGAGACTTGTGTGAGGTGTGAGCTGTGGCATGCCCAACCCGCGGCT 971
Db      246 GAAATAAGCGGACCCAGAGATTTCTGTGAGGTGTGAGCTGTGGCATGCCCAACCCGCGGCT 305
Qy      972 GAAAGAGAGAGAGAGAGCTGTGACCGTGTGTGACGTTGGGCGAGCGCTTACTTGAAGGTGCCCT 1031
Db      306 GAAAGAGAGAGAGAGAGCTGTGACCGTGTGTGACGTTGGGCGAGCGCTTACTTGAAGGTGCCCT 365
Qy      1032 GGAAGAGAGCTTCGCAAGTGTACAGCGCTTCAACATCCCAAGCATCAACAGAGAGCCG 1091
Db      366 GGAAGAGAGCTTGAAGAGTGTACAGCGCTTGAACATCCCAAGCATCAACAGAGAGCCG 425
Qy      1092 CGGCATCCGCTTACAGTACCAAGCTGTGCGCGCGAGGCTGAAAGGCGAGCCGAGCATCTT 1151

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Db 426 TGGCATCAATATCAAGTACAACTCCTCCCGAGGGCTGGAAGGGCTCTCCGCAATTT 485  
Qy 1152 CCAGACAGCATGACCAAGATCTGTGAGCCCTTCCGCGCCGCAACCCCGAGATCTGTAT 1211  
Db 486 CCGAGACTCCATGACCAAGATCTGTGAGCGGTTTCGGAAGCAAGACCCCGATTCGTAT 545  
Qy 1212 CTACCA-----GGCCCCCTGTATCTGTGGCAGCGACTGTGAAGATGTGGCCAGCAGCGC 1265  
Db 546 CTACCAAGTACATGACGACCTGTATCGTGGCTCTGACTGTGAAGATCGGGCAGCATGCGAC 605  
Qy 1266 CAAGATCGAGGACCTGTGGCAAGCACTGCTGCGTGGGGCTTCAACACCCCGCAAGAA 1325  
Db 606 GAAGATTGAGGACCTGAGCGACATCTGTGAATGGGGCTTGAACACTCCGACAAAGAA 665  
Qy 1326 GCACCAAGAGAGCCCCCTTCTCTGTGATGGGCTACGAGCTGACCCCGCAAGTGGAC 1385  
Db 666 GCATCAAGAGAGCCCGCATTTCTGTGATGGGCTACGAGCTCATCCGCAAGTGGAC 725  
Qy 1386 CGTGCAGCCCATGAGCTGCTCCGAGAGAGAGAGCTGAGCCGTGAACGATCCAGAACT 1445  
Db 726 CGTGCAGCTTATGCTCTCCCGAGAGAGCAGCTGAGCCGTGAACGATCCAGAACT 785  
Qy 1446 GGTGGGCACTGAACTGTGGCCAGCCGAGATCTACCCCGCATGAAGGTGGCCAGCTGTG 1505  
Db 786 GGTGGGCAAGCTCAACTGGGCTAGCCAGATCTATCCGAGATCAAGGTGGCCAGCTCTG 845  
Qy 1506 CAAGCTGTGCGGGGCGCAAGGCGCTGACCGACATGTCGCCCTGACCGAGAGGCGCA 1565  
Db 846 CAAGCTGTGCGGGGCAACAGGCGCTGACCGAGATATTCCTTCAAGAGAGAGCGCA 905  
Qy 1566 GCTGAGCTGCGCGAGAACCGGAGATCTGTGCGGAGCCGTGACGCGGTGTATCAGA 1625  
Db 906 GCTGAGCTGCGCTGAGAACCGGAGATCTGTGAAGAACCGGTGACGCGGTGTATCAGA 965  
Qy 1626 CCCCAGCAAGACCTGTGGCCGAGATCCAGAACAGAGGCGCAACAGTGGACCTTACA 1685  
Db 966 CCCCCTCCAGAGACTGTATCGCCGAATCCAGAACAGAGGCGCAAGTGGACATACCA 1025  
Qy 1686 GATTTACAGAGGCGCTTCAAGAACTGAAGACCGGCAAGTACCCCAAGATCGCACCGC 1745  
Db 1026 GATTTACAGAGGCGCTTCAAGAACTTCAGAACCGGCAAGTACCCCGCATGAGGGGCGC 1085  
Qy 1746 CCAACCAAGACGCTGAAGCAGCTGACCGAGGCGGTGCAAGAACTGCGCATGAGAGCAT 1805  
Db 1086 CCAACCAAGATGTCAAGAGCTGACGAGGCGGTCAAGAACTGCAAGACCGAGTCCAT 1145  
Qy 1806 CGTATCTGGGGCAAGACCCCAAGTTCCGCTGCTCATCCAGAAAGAGACTTGGAGAC 1865  
Db 1146 CGTATCTGGGGGAAAGACCCCAAGTTCAAGCTCTATCCAGAAAGAGACTTGGAGAC 1205  
Qy 1866 CTGTGTGACCGACCTAGCGAGGCACTGATCCCGAGTGGAGTTGTAAGCAACCC 1925  
Db 1206 GTGTGTGACCGAATATTTGGACGGCCACTGTGATTCGAGTGGAGTTGTAAGTACCC 1265  
Qy 1926 CCCCCTGTGAGGCTGTGTGTAACAGCTGAGAGAGAGCCCATCATCGGCGCCAGACTT 1985  
Db 1266 TCCCTGTGTGAGGCTGTGTGTAACAGCTGAGAGAGCCCATTCGTGGCGCGAGACATT 1325  
Qy 1986 CTAGCTGAGCGGCGCCGCAACCGGAGACCAAGATCGGCAAGCTCGGCTTACGTGACGA 2045  
Db 1326 CTAGCTGAGCGGCGGCGCAACCGGAGAACTGCGGAAAGCGCGGTTCGTACCA 1385  
Qy 2046 CCGGGGCGCGGAGAGATCGTGAAGCTGACCGAGACCAACCAAGAGACCGAGTGA 2105  
Db 1386 CCGGGGCGCGGAGAGGTCGACCTTGAACCGACCAACCAAGAGAGAGAGACTGCA 1445  
Qy 2106 GGGCATTCAGCTGCGCTGTGAGAGACGCGGACGAGCGAGTGAACATGTGACCGACGCA 2165  
Db 1446 GGGCATTCATCTCGCTTCCAGAGACTCGGCGCTGAGAGTGAACATGTGACCGACGCA 1505  
Qy 2166 GTAGCGCTGTGGCATCATTCAGAGCCGACCGCAAGAGAGAGAGAGCTGTGTGAACA 2225  
Db 1506 GTAGCGCTGTGGCATTATTACAGGCGCAAGCCGAGCAAGTCCAGAGAGAGAGCTGTGTGAACA 1565

Qy 2226 GATCATTCAGAGAGCTGATGACAGAGAGAGGTTACTGAGCTGTGGTCCGCCCAACA 2285  
Db 1566 GATTATTCAGAGAGCTGATGACAGAGAGAGGTTACTGCTGCTGGTCCGCCCAACA 1625  
Qy 2286 GGGCATCGCGGCAAGAGAGAGAGAGAGAGTGTGAGCAGAGAGAGATCCGAGAGTGT 2345  
Db 1626 GGGCATTCGCGGCAAGAGAGAGAGTGTGAGAGAGTGTGAGTGGGGGATTGAGAGGTC 1685  
Qy 2346 GT 2347  
Db 1686 GT 1687

RESULT 5  
US-11-042-988-10  
; Sequence 10, Application US/11042988  
; Publication No. US2005024481BA1  
; GENERAL INFORMATION:  
; APPLICANT: SILICIANO, ROBERT  
; APPLICANT: ZHANG, HAILI  
; APPLICANT: ZHOU, YAN  
; TITLE OF INVENTION: SINGLE CELL ANALYSIS OF HIV REPLICATION CAPACITY AND  
; TITLE OF INVENTION: DRUG RESISTANCE  
; FILE REFERENCE: 62760 (71699)  
; CURRENT APPLICATION NUMBER: US/11/042,988  
; CURRENT FILING DATE: 2005-01-25  
; PRIOR APPLICATION NUMBER: 60/540,716  
; PRIOR FILING DATE: 2004-01-30  
; NUMBER OF SEQ. ID NOS: 16  
; SOFTWARE: PatentIn Ver. 3.3  
; SEQ. ID NO 10  
; LENGTH: 9719  
; TYPE: DNA  
; ORGANISM: Human immunodeficiency virus type 1  
US-11-042-988-10

Query Match 44.9%; Score 1106.8; DB 9; Length 9719;  
Best Local Similarity 68.3%; Pred. No. 6,4e-171;  
Matches 1598; Conservative 0; Mismatches 723; Indels 19; Gaps 4;

Qy 43 GCCAATCTGATGACGAG 102  
Db 1909 GCTACCAATATGATGACAG 1968  
Qy 103 AACTCGGCAAG 162  
Db 1969 AATTGTGGCAAG 2028  
Qy 163 TGGAGTGGCGCAAG 222  
Db 2029 TGGAAATGTGAAAG 2087  
Qy 223 TTCCGCAAG 282  
Db 2088 TTAAAGGAAGATCTGCGCTTCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2147  
Qy 283 CGCGCAAG 336  
Db 2148 AGAGCAAG 2207  
Qy 337 AGCGAG 390  
Db 2208 TCAG 2267  
Qy 391 TGGAG 450  
Db 2268 TGGCAAG 2327  
Qy 451 ACCGCGCGAG 510  
Db 2328 ACAG 2387

QY 511 ATGATCGGCGCATCGGCGGCTTCATCAAGGTGCGCCAGTACGACCAATCTGTATCGAG 570  
 DB 2388 ATGATGAGGAGGAAATGAGAGTCTTTATCAAAATAGACAGTATGATCAGATCTCATAGAA 2447  
 QY 571 ATCTGCGGCAAGAAAGGCTATGGGACCGGTGATATGGGCCCAACCCCGGTGAACATCATC 630  
 DB 2448 ATCTGTGACATTAAGCTATAGGTACAGATTAATAGAGACCTAACCTGTCAACATAAT 2507  
 QY 631 GGCAGCAATCTGACCCAGCTGGGCTGACCCCTGAACCTTCCCATCAGCCCATCGAG 690  
 DB 2508 GGAAGAAATCTGTGATCAGATGAGTGTGCACTTTAAATTTTCCATTAGCCCTATTGAG 2567  
 QY 691 ACCGTGCGGTGAAGCTGAAGCCCGGATGAGAGGCCCAAGGTGAAGCATGGCCCTG 750  
 DB 2568 ACTGTACAGTAAATTAAGCCAGGATGAGATGGCCCAAAAGTTAAACATATGGCCATTG 2627  
 QY 751 ACCGAGAGAAATCAAGCCCTGACCCGCTATCTGAGAGAGATGAGAGAGAGGCAAG 810  
 DB 2628 ACAGAGAAAGAAATTAAGCATTAATGAAATTTGTACAGAGATGAGAGAGAGAGGAA 2687  
 QY 811 ATCACCAAGATCGGCGCCGAGAAACCCCTAACACCCCGGTGTCGCTCAAGAAAGAG 870  
 DB 2688 ATTTCAAAATTTGGGCTGAAATTCATACATATCTCAATATTGGCTATTAAGAGAAAA 2747  
 QY 871 GACAGACCAAGTGGCGCAAGCTGTGGACTTCCGAGAGCTGAACAGCGCACCCAGAG 930  
 DB 2748 GACAGTACTAAATGAGAGAAATTAATGATTAATTCAGAGAACTTAATTAAGAGAACTCAAG 2807  
 QY 931 TTCTGGAGAGTGAAGTGGGCAATCCCGCACCCCGGCTGTGAAGAGAGAGAGAGGCTG 990  
 DB 2808 TTCTGGAGAGTGAAGTGGGCAATCCCGCACCCCGGCTGTGAAGAGAGAGAGAGGCTG 2867  
 QY 991 ACCGTGCTGAAGTGGGCGACGCTTCAAGGTGCGCCCTGAGACGAGACTTCCGAG 1050  
 DB 2868 ACAGTACTGAGATGTGGGTATGATATTTTCAATGCTTCCATTAGATGAACCTTCAGAG 2927  
 QY 1051 TACACGCTTGAACATCCCGAGCATCAACAGAGACCCCGGCTGCTGATCAACAGTAC 1110  
 DB 2928 TATACGCTTGAACATCCCGAGCATCAACAGAGACCCCGGCTGCTGATCAACAGTAC 2987  
 QY 1111 AACGTGCTGCGGCGGCTGAGAGAGGCGAGCCGAGATCTTCCAGAGCGATGACCAAG 1170  
 DB 2988 AATGTGCTTCAACAGGATGAGAGAGATGACAGCAATATTCGAAAGTGAATGACAAA 3047  
 QY 1171 ATCTGAGAGCCCTTCCGCGCCGAGACCCGAGATGTGATCTACCA-----GGCCCC 1224  
 DB 3048 ATCTTGAAGCCCTTTTGAAGAAACAAATCCAGACATGTTATCTATTAATACATGATGAT 3107  
 QY 1225 CTGTACGTGGGAGCGACCTGAGATCGGCAGCACCGCGCCAGATTCAGAGAGCTGCGC 1284  
 DB 3108 TTGTATGTAGATCTGACTTAAGAAATAGGGCAGCATAGAAACAAATTAAGAGAGCTGAGA 3167  
 QY 1285 AAGCATCTGTGCTGTGGGCTTACACACCCCGGACAGAGACCAAGAGAGAGAGAGAGAG 1344  
 DB 3168 CAACATCTGTGTAGGGGAGCTTACACACAGACAGAGAGAGAGAGAGAGAGAGAGAGAG 3227  
 QY 1345 TTCTGTGATGAGGCTGACAGAGCTGACCCCGACCAAGTGAACGCTGAGCCATCGAGCTG 1404  
 DB 3228 TTCTGTGATGAGGCTTATATATCTCCATCTGTATTAATGAGACGCTTATAGCTGCTG 3287  
 QY 1405 CCGAGAGAGAGAGAGCTGACCGGTGAACGATCCAGAGAGCTGTGGGCAAGCTGAATCG 1464  
 DB 3288 CCGAGAGAGAGAGAGAGCTGAGCTGTGATGATGATGATGATGATGATGATGATGATGAT 3347  
 QY 1465 GCGAGCGAGATCTACCCCGGATCAAGGTGCGGCAAGCTGTGAGCTGTGCGCGCGCC 1524  
 DB 3348 GCAAGTCAATTTACCGAGGATTAAGGTGAAGCAATTTATGTAATCTCTTGAAGAGAAC 3407  
 QY 1525 AAGGCGCTGACGAGATCTGCGCCCTGACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1584  
 DB 3408 AAGGCGCTGACGAGATTAATCACTTAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3467  
 QY 1585 CCGAGATCTGTGCGAGAGCCGCTGACCGGCTGTATCTAGACCCCGAGAGAGAGAGAGAG 1644

DB 3468 AAGAGATCTTAAAGAACCAAGTACATGAGGTATTTAGACCCATCAAAAGACTTAATA 3527  
 QY 1645 GCGAGATCCAGAGAGAGGCGGACGACAGAGTGAAGCTTACAGATCTACAGAGAGCCCTC 1704  
 DB 3528 GCGAGATCCAGAGAGAGGCGGACGACAGAGTGAAGCTTACAGATCTACAGAGAGCCCTC 3587  
 QY 1705 AAGAGCTGAAGAGAGGCGGACAGTACCGCAAGATGCGCACCGGCGGACGACAGAGAG 1764  
 DB 3588 AAGAGCTGAAGAGAGGCGGACAGTACCGCAAGATGCGCACCGGCGGACGACAGAGAG 3647  
 QY 1765 CAGCTGACGAGAGCGGCTGCAAGAGATTCGCTATGAGAGAGATGTGTATCTGTGGGCAAG 1824  
 DB 3648 CAATTAAAGAGAGGCGGCTGCAAGAGATTCGCTATGAGAGAGATGTGTATCTGTGGGCAAG 3707  
 QY 1825 CCGAGCTGCGGCTGCGGCTGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1884  
 DB 3708 CCGAGCTGCGGCTGCGGCTGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3767  
 QY 1885 CAGGCACTGATCCCGAG 1944  
 DB 3768 CAGGCACTGATCCCGAG 3827  
 QY 1945 TACAGCTGAG 2004  
 DB 3828 TACAGCTGAG 3887  
 QY 2005 AACCGGAG 2064  
 DB 3888 AACCGGAG 3947  
 QY 2065 GTGAGCTGAG 2124  
 DB 3948 GTGAGCTGAG 4007  
 QY 2125 CAGGAG 2184  
 DB 4008 CAGGAG 4067  
 QY 2185 CAGGAG 2244  
 DB 4068 CAGGAG 4127  
 QY 2245 AAG 2304  
 DB 4128 AAG 4187  
 QY 2305 CAGATGACAG 2364  
 DB 4188 CAGATGACAG 4247

RESULT 6  
 US-10-519-531-8  
 ; Sequence 8, Application US/10519531  
 ; Publication No. US20050244429A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Polke, Thomas M.  
 ; TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR  
 ; FILE REFERENCE: 14114.037302  
 ; CURRENT APPLICATION NUMBER: US/10/519,531  
 ; PRIOR FILING DATE: 2004-12-27  
 ; PRIOR APPLICATION NUMBER: PCT/US03/20325  
 ; PRIOR FILING DATE: 2003-06-27  
 ; PRIOR APPLICATION NUMBER: 60/392,630  
 ; NUMBER OF SEQ IDS: 8  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 8  
 ; LENGTH: 17207  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:

OTHER INFORMATION: Description of Artificial Sequence:/note =  
 OTHER INFORMATION: synthetic construct  
 US-10-519-531-8

Query Match 6.3%; Score 156.2; DB 6; Length 17207;  
 Best Local Similarity 66.7%; Pred. No. 2.3e-17;  
 Matches 289; Conservative 0; Mismatches 128; Indels 16; Gaps 4;

14 TGGCCAGGCGCATGAGCCAGCCACCA--GCCCAACATCTGTATGACGGAGCAACT 70  
 13954 TGGCTGAGCAATGAGCCAGTAACAATTCACCTACATTAATGATACGAAAGCAATT 14013  
 71 TCAAGGCGCCCAAGCCATCATCAAGTCTTCAACTGCGCAAGAGGCGCAATGCGCC 130  
 14014 TTGAGAACCAAGAAAGACTGTTAAGTTCATATGTGGCAAGAGGCGCATAGCCA 14073  
 131 GCAACTGCCCGCCCCCGCAAGAGGCTGTGAAAGTGGCGCAAGAGGCGCACAGGA 190  
 14074 AAAATTGCAAGGCGCCCTTAGAAGAAAGGGCTGTGAAATGTGAAAGAGAAACCA 14133  
 191 TGAAGACTGCACCGAGCGCCAGCCAACTTCTTCCGAGAGACTGCGCTTCCCGCAGG 250  
 14134 TGAAGATTGACTGAGAGACAGGCTTA-TTTTTCGAGAAAGATCTGCGCTTCCCAAG 14192  
 251 GCAAGGCGCGGAGTTCCCGAGAGAGAACCGCGCAACAGCCCAACGACCGCGAGC 310  
 14193 GGAAGGCGAGGAAATTTTCTTCAAGAGACAGACAGAGCAACGCCCAACAGAGAGC 14252  
 311 TGCAGTGGCGCG-----CGAACACCCCGCAGAGCGCGCGCGCGAGCGCGAGGCA 364  
 14253 TTCAAGTTTGGGAGAGAACCAACCTCTCTCAAGAGAGAGGCGGATAGACAGAA 14312  
 365 -----CCTGAACCTTCCCGCAGATCACTGTGTGAGCGCGCGCTGTGAGCATCAAG 418  
 14313 CTGTATCTTTAGCTTCCCTCAATCACTCTTGTGAGAGCAACCCCTGTCAATTAACA 14372  
 419 TGGCGGCGCAGAT 431  
 14373 GGGGAAGTGACAT 14385

RESULT 7  
 US-10-519-531-2  
 ; Sequence 2, Application US/10519531  
 ; Publication No. US2005024429A1

GENERAL INFORMATION:  
 APPLICANT: Folks, Thomas M.  
 TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR  
 FILE REFERENCE: 14114.0373U2  
 CURRENT FILING DATE: 2004-12-27  
 PRIOR FILING DATE: 2003-06-27  
 PRIOR APPLICATION NUMBER: PCT/US03/20325  
 PRIOR FILING DATE: 2002-06-27  
 PRIOR APPLICATION NUMBER: 60/392,630  
 NUMBER OF SEQ ID NOS: 8  
 SOFTWARE: FastSeq for Windows Version 4.0  
 SEQ ID NO 2  
 LENGTH: 1503  
 TYPE: DNA  
 ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Description of Artificial Sequence:/note =  
 OTHER INFORMATION: synthetic construct  
 US-10-519-531-2

Query Match 6.3%; Score 154.6; DB 6; Length 1503;  
 Best Local Similarity 67.6%; Pred. No. 4.5e-17;  
 Matches 282; Conservative 0; Mismatches 119; Indels 16; Gaps 4;  
 14 TGGCCAGGCGCATGAGCCAGCCACCA--GCCCAACATCTGTATGAGCGCGCAACT 70  
 1088 TGGCTGAGCAATGAGCCAGTAACAATTCACGATACCATATATATACAGAAAGCAATT 1147

71 TCAAGGCGCCCAAGCCATCATCAAGTGTCTCAACTGCGGCAAGAGGCGCACATGCC 130  
 1148 TTGAGAACCAAGAAAGACTGTTAAGTGTTCATATGTGCAAGAGGCGCATATGCCA 1207  
 131 GCAACTGCCCGCCCCCGCAAGAGGCTGTGAAAGTGGCGCAAGAGGCGCACAGA 190  
 1208 AAAATTGCAAGGCGCCCTTAGAAGAAAGGGCTGTGAAATGTGAAAGAGAACACCA 1267  
 191 TGAAGACTGCACCGAGCGCCAGGCCAATCTTCTCCGAGAGACTGTGCGCTTCCCGCAGG 250  
 1268 TGAAGATTGACTGAGAGACAGGCTTA-TTTTTCGAGAAAGATCTGCGCTTCCCAAG 1326  
 251 GCAAGGCGCGGAGTTCCCGAGAGACAAACCGCGCAACAGCCCAACAGCGCGAGC 310  
 1327 GGAAGGCGAGGAAATTTTCTTCAAGAGACAGAGCCCAACAGCCCAACAGAGAGC 1386  
 311 TGCAGTGGCGCG-----CGAACACCCCGCAGAGCGCGCGCGCGCGCGCAGGCA 364  
 1387 TTCAAGTTTGGGAGAGACAACTCTCTCAAGAGAGAGCGCATAGACAGAA 1446  
 365 -----CCTGAACCTTCCCGCAGATCACTGTGTGAGCGCGCGCTGTGAGCATCA 415  
 1447 CTGTATCTTTAGCTTCCCTCAATCACTCTTGTGAGAGCAACCCCTGTCAATTA 1503

RESULT 8  
 US-10-507-928-3  
 ; Sequence 3, Application US/10507928  
 ; Publication No. US2005026602A1  
 GENERAL INFORMATION:  
 APPLICANT: POWDERMIL LIMITED AND GLAXO GROUP LIMITED  
 TITLE OF INVENTION: ADJUVANT  
 FILE REFERENCE: N.88232B GCM  
 CURRENT APPLICATION NUMBER: US/10/507,928  
 CURRENT FILING DATE: 2004-09-17  
 NUMBER OF SEQ ID NOS: 12  
 SOFTWARE: PatentIn version 3.1  
 SEQ ID NO 3  
 LENGTH: 1503  
 TYPE: DNA  
 ORGANISM: Artificial sequence  
 FEATURE:  
 OTHER INFORMATION: nucleotide sequence of p55 gag insert in pGagOptirp2  
 US-10-507-928-3

Query Match 5.7%; Score 141.4; DB 6; Length 1503;  
 Best Local Similarity 69.0%; Pred. No. 6.1e-15;  
 Matches 223; Conservative 0; Mismatches 96; Indels 4; Gaps 2;

14 TGGCCAGGCGCATGAGCCAGG---CCACAGCGCAACATCTGTATGACGGAGCAACT 70  
 1088 TGGCCGAGCCATGAGCCAGGTGACGAATCCGCAACATCATGATGACAGAGGAACT 1147  
 71 TCAAGGCGCCCAAGCCATCATCAAGTCTTCAACTGCGGCAAGAGGCGCAATGCGCC 130  
 1148 TCCGCAATCAGCGAAGATGTGAAGTTCATATTCGGAAGAGAGGATATCCGCC 1207  
 131 GCAACTGCGCGCGCCCCCGCAAGAGAGGCTGTGAAAGTGGCGCAAGAGGCGCACAGA 190  
 1208 GCACTGTGCGGCGCCCTTAGAAGAAAGGCTGTGAAAGTGGCGCAAGAGGAGAACCA 1267  
 1268 TGAAGACTGTACGAGACGACAGGCCAA-TTTTCTTGAAGAAATTTGGCGAGCTACAG 1326  
 191 TGAAGACTGCACCGAGCGCCAGGCCAATCTTCTCCGAGAGACTTGTGCGCTTCCCGCAGG 250  
 1268 TGAAGACTGTACGAGACGACAGGCCAA-TTTTCTTGAAGAAATTTGGCGAGCTACAG 1326  
 251 GCAAGGCGCGGAGTTCCCGAGAGAGAAACCGCGCAACAGCCCAACAGCGCGAGC 310  
 1327 GGGAGACTGTGTAATTTCTTGCAGAGAGCGCCGAGCCACCGCCCTGTGAGAAATTC 1386  
 311 TGCAGTGGCGCGCGCAACCC 333  
 1387 TTCAAGTCCGAGGTGAGACCA 1409



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OY 919 CCGACCCAGAGATTCTGGAGGTGACCTGGGATCCCCACCGCGCTGAAGAG 978
DB 1207 GTCCGGAGACAGCCGACCGCCACCAACGCTCGGCGAGCTTTCAGACCGGCTCGGC 1266
OY 979 AAGAGAGGTGACCGTGTGACGTTGGGAGATGCTTACGCTTCCCTGGAGCAG 1038
DB 1267 GAGGATCTCTGGGCTACGCGCCGACATGCGCGAGATACCGACCAAGCTCTTCGCAAG 1326
OY 1039 GACTTCGGAGATGACACCGCTTACCATATCCCAAGATCAACAGAGACCCCGGATC 1098
DB 1327 GAACTCGCTCCCGGAGCGCTGCGCCCGACCGCCCGCTCAACGCGCCCGGAG 1386
OY 1099 CGCTACCAATGACACGCTGTGCTCCGAGGCTGAGAGGAGCGCCAGCATCTTTCAGAGC 1158
DB 1387 AAGACCTCGGCGCTTTCAGAGACGTCGCGCGCCCTGAGAGGTCTTTCGCGCCCGAGTTC 1446
OY 1159 AGCATGACCAAGATCTGTGAGCCCTTCC---GGCCCGCAACCCCGAGATCGATCTAC 1215
DB 1447 ATCGAGCTCTACATCTCTCATGTGTGACAGGCGCGACGATCTTTCGCGCGCGGTGA 1506
OY 1216 CAGGCCCCCTGATAGTGGGACGACCTGGAGATCGGCGACGCGCCAGATCGAG 1275
DB 1507 CTGCGCCGAGAGCGCGGCTGATGACCTGACGCGCGCTGGCGAGAGATCGGCGATCTGT 1566
OY 1276 GAGCTGCGCAAGACCTG---CTGCGCTGGGCTTTCACCAACCCCGCAAGAGACACAG 1332
DB 1567 CCGCTGTGAGACACACCGACGAGCTGAGAGCGCGCGACACATCTGTGAGAGACTGTCTC 1626
OY 1333 AAGAGAGCCCTCTTCTGTGATGAGGCTACGAGCTGACCCCGACAAAGTGAACGTTGAC 1392
DB 1627 GCGGACCCCTCTACCGGCGCTGTGCTGCGCTGCGCGACGTCGAGAGATCTATCTC 1686
OY 1393 CCCATCGAGCTGCGCGAGAGAGAGAGTGAACGTTGAACGATTCAGAACTGATGAGC 1452
DB 1687 GGGTACTCCGACCTCTCAAGTTCTGGGCTGATCCACACGAGCTGAGAGATCAACCGC 1746
OY 1453 AAGTGAATCTGGGCGACGACGATCTACCCGCGCATCAAGGTGCGCAGCTGTGACAGCTG 1512
DB 1747 GCCAGAGCGCGGCTGCGCGACGATGCGCCACCGCTACGCGCGTACGCGCTGTCTTCAC 1806
OY 1513 CTGGCGCGCGCAAGGCGCTGACCGACATGTCCTTACCGAGAGGCGGAGCTGAG 1572
DB 1807 GCGCGCGCGGACCGTCTGCGCGCGGCGCGCGCCACCGACGACGCGCATCTCGCCAG 1866
OY 1573 CTGGCGGAGAACCGCGAGATCTGTGCGGAGCGCCCGTGAACGCGCGTACTACGCCAGC 1632
DB 1867 CCTGGGCGCACCTGTGAGGAGGAGATCAAGGTCAACGAGGAGGCGAGGTATCTTCGAC 1926
OY 1633 AAGGACCTGTGGCGGAGATCCAGAGAGGCGGACGACGATGAGCTTACAGATCTAC 1692
DB 1927 AAGTACTCTATCCCGCTCGCGCGGAGAACCTGAGAGCTGACCGTGTGCGGCGACCTTC 1986
OY 1693 CAGGAGCCCTTCAAGAACCTGAGAACCGGCAAGTACCGCAAGATGCGCACCGCCACAC 1752
DB 1987 CAGGCTCTCGCGCTGACACCGCGCGCGCGCAGTCCGACGAGGCGCTGGCGCGGAGC 2046
OY 1753 AAGCAGTGAAGACGACTGACCGAGGCGCTGAGAGAGATGCGCATGAGAGAGATGTATC 1812
DB 2047 GCGCGAGATGAGATGTCTCTCGAGCGCGCCGACACCGGCTACCGGCACTTGTGAGGAGC 2106
OY 1813 TGGGCGAAGACCCCGAAGTTCGCGCTGCGCATCCAGAGAGAGACTTGGAGAGACTGTGAG 1872
DB 2107 CCGGACCTGCGGACCTTACTTCTGCGCTCCACCGCGCTGACAGCTGCGGAGCCTGTGAC 2166
OY 1873 ACCGACTGCTGAGGAGGACCTGATTCGCGAGTGGAGTTCGTGAACACCCCGCTGTG 1932
DB 2167 CTGGGCTGCGGCGCTCTCGCGCGCGCGCGCTGCGGCTGTGCTGAGAGAGCTGTGCGCC 2226
OY 1933 GTGAAGCTGTGTATACAGCTGAGAGAGAGCCCATCATCTGCGCGAGAGAGACTTTCAGTG 1992
DB 2227 ATCCGCTGTGTGTGTGAGTGAACCGATCTCCGCGAGATGTCTCCGCGCTGTGATCGGCGT 2286

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OY 1993 GACGGCGCGCCCAACCGCGAGACCAAGATCGGCAAGCGCGGCTAGCTGACCGAGCGGC 2052
DB 2287 GCGTCCGCGCTTAAGGCGCTTGGCGGAGCGGCGCTGAGACACGCTGTGACAGATGACAC 2346
OY 2053 CCGGAGAGATGATGAGCTGACCGAGACCAACCAAGAGACGAGCTGACAGGCTATC 2112
DB 2347 CAGCAGTGGACATTCTCCGCAACTTCACTTCCAACTGTGAGATGACCTTCGCGAAGCC 2406
OY 2113 CAGCTGCGCTTGCAGAGACGCGGACGCGAGTGAACATGCTGACGAGCGAGTACGCC 2172
DB 2407 GACTGCGCATGCGCGGACGACCTGACCTGCTGCGGACGCTGACGCTGACGCTGAC 2466
OY 2173 CTGGGATCATCAAGCGCGGACCGGACCAAGAGAGAGAGAGCTGTGAAACGATCATC 2232
DB 2467 TTGACACATCAAGGCGCGGACGAGACGAGCTCAACGCTGCGGAGGTCTTGGCGCTGAC 2526
OY 2233 GAG 2235
DB 2527 GAG 2529

RESULT 11
US-10-858-730-142
; Sequence 142, Application US/10858730
; Publication No. US2005025568A1
; GENERAL INFORMATION:
; APPLICANT: Bailey, Richard B.
; APPLICANT: Blomquist, Paul
; APPLICANT: Doten, Reed
; APPLICANT: Driggers, Edward M.
; APPLICANT: Madden, Kevin T.
; APPLICANT: O'Leary, Jessica
; APPLICANT: O'Toole, George
; APPLICANT: Trueheart, Joshua
; APPLICANT: Walbridge, Michael J.
; APPLICANT: Yorgey, Peter S.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID
; FILE REFERENCE: 14184-030001
; CURRENT APPLICATION NUMBER: US/10/858, 730
; CURRENT FILING DATE: 2004-06-01
; PRIOR APPLICATION NUMBER: US 60/475, 000
; PRIOR FILING DATE: 2003-05-30
; PRIOR APPLICATION NUMBER: US 60/551, 860
; PRIOR FILING DATE: 2004-03-10
; NUMBER OF SEQ ID NOS: 364
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 142
; LENGTH: 3513
; TYPE: DNA
; ORGANISM: Streptomyces coelicolor
US-10-858-730-142

Query Match 4.2%; Score 102.6; DB 6; Length 3513;
Best Local Similarity 43.8%; Pred. No. 1.1e-08;
Matches 909; Conservative 0; Mismatches 1124; Indels 42; Gaps 9;

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369 GAATTTCCCCAGATCACTCTGTGAGAGAGCCCTGTGTAGCATCAAGTGGAGGCCA 428  
 Db 417 G-----CTCCCACTCTGGGACAGCCCGTAACACGTCCTGGGAGAGCTTACCA 467  
 429 GATCAAGAGAGCCCTGTGTGACACCGGCGCCGACACCGTCTGTGAGAGATGAGCT 488  
 Db 468 GGGCAACGCGGAGGACTGTGTGCGGCGCGCGAGACGCACTGTGTGTGAAACACGCA 527  
 469 GCGCGGCAAGTGGAAAGCCCAATGATGCGCGGCACTGGGCGCTTCATCAAGTGGCCA 548  
 Db 528 GAACCTGCTCCAGACCAAGAGCTCGGTGCTGGAGCGCGCGCGCGCTTGAAGTCTTGG 587  
 549 GTACGACAGATCTGTATGAGATCTGCGGCAAGAGGCCATCGAGCCGTGTATGCG 608  
 Db 588 CCGACCTGCGCGCTGATGTGTGTGTCACCGTGGAGACACCGGACCATGTGTGTGG 647  
 609 CCGCACCCCGGTGAACATATGCGCGGCAATGTCTGACCCGAGCTGGGTGCACTCTGA 668  
 Db 648 CTG-----GAGATGTGGGCGCGCTCACCGGCTGTGAAACCGCTTGGCATGATGAT 701  
 669 CTTCCTCATCAGCCCATGAGACCGGTGCGCGTGAAGCTGAAGCCCGCATGAGAGGCC 728  
 Db 702 CGGCTGAATGCGGACCGAGCCCG-----CGAGATGAGCGAGACCTGCGCTACCTGCG 758  
 729 CAAGTGAAGCAGTGGCCCTGTGACGAGGAGAAATCAAGGCCCTGACCGCATCTGCGA 788  
 Db 759 CGGCACTCCCGATCCGCTGACCTGTGACCTGACCAAGCGGATCTTGTCTGTGGCA 818  
 789 GGAATGTGAAAGAGAGGAGCAATC---ACCAATGTGGCCCGGAGAACCTCTACACAC 845  
 Db 819 GGAACGCGGCCACTACCGCTGACCGCGCGCGAGCTGCGCGACGACAGAACCTTCT 878  
 846 CCCCCTGTGTGATCAAGAAAGAGACAGACCAAGTGGCGCAAGCTGTGATCTTGG 905  
 Db 879 GCGGAGTACGCGCTGTCTGTCTGTGTGGCGCTGTGTGGGACACGCGCGAGACCTTGG 938  
 906 CGAGCTGAACAGAGCGACCCAGGACTTCTGTGAGGTGAGCTGGAGC---ATCCCGCACCC 962  
 Db 939 CGAGGTGTGTGAGCGGAGTCCGAGGACACCGCCCGACCGGACCGGCGCGCGAGCC 998  
 963 CGCCCGCTGAAGAGAGAGAGAGCTGTACCGTGTGAGAGTGGGCGAGCTTCTGAG 1022  
 Db 999 CGGCGCGCTGTGTCTTACAGACCGTGTCTTCC-----GCCAGAGAACCTCTCTA 1049  
 1023 CGTGTCCCTGAGAGAGACTTCCGAGATGACACCGCTTCAACATCCGAGATCAACA 1082  
 Db 1050 CCGGCGCATCGGAGAGCGACCAAGCGCAAGGATTCAGAGAGCTATGCT 1109  
 1083 CGAGACCCCGGCGATCGCTTACAGATGACAGTGTGCTGCGCCAGAGCTGAGAGGCGCC 1142  
 Db 1110 GGAACGCGCTGTGAGACCTGTGTGAGTGGCGCGGACAGATCCGAGAGGCGCGCA 1169  
 1143 CAGCATCTTCCAGAGCAGATGACCAAGATCTGTGAGCCCTTCCGCGCGCAACCCCGA 1202  
 Db 1170 CATGTCTGACCTCTGTGTGACTACTGTGCGCGGAGAGCGGTGCGAGATGAGAGACT 1229  
 1203 GATGTGATCTACAGAGCCCGCTGTGACGTGGGCAAGCTGTGAGATGAGGACGACCG 1262  
 Db 1230 GCGCGGCGGTGTGCGACAGCTTCCAGCTGCGGATGTCTGTGATCTACAGAGGTGCA 1289  
 1263 CGCAGATGAGAGAGCTGTGAGAGCCTGTGCTGCGGTGAGCTTACCAACCCCGACAA 1322  
 Db 1290 CGTCACTCGGCGCGGCTGTGAGAGAGCTGTGGCGCGCGGAGTCAACTCGGTCAACTA 1349  
 1323 GAAAGCACAGAAAGAGAGCCCTTCTGTGTGATGGCTACAGAGTGCACCCGACAGTGG 1382  
 Db 1350 CGAGAGCGGCGCGCGCGCGGAGTCCCGGTTCGCGCGCTGACAGAACTGCGCGGAGCA 1409  
 1383 GACCGTGCAGCCCATGAGTGTGCGGAGAGAGAGACTGTGAAAGCATCCAGAA 1442  
 Db 1410 CGGCGCGGCTGTGATGCGCTGACATGACAGAGTGTGAGACAGGCGCGCACCGCGAGAA 1469  
 1443 GCTGTGTGGCAAGCTGAACTGTGGCGAGCATCTACCCCGCATCAAGTGTGGCAGCT 1502

Db 1470 GAAGGTCCAGATTCGCGCAACGCTCTCATGAGACTTACCGGCAACTGGGCGATCACGA 1529  
 1503 GTGCAAGCTGTGCGGCGGCGCAAGAGCCCTGACCGGACATCGTGAGCCCTGACCGAGAGG 1562  
 Db 1530 GTCCGACATCTCTGTGAGCTGTGTACCTTACCACTGTGACCGGCGAGAGAGATCCCG 1589  
 1563 CGAGCTGAGCTGTGCGGAGAACCGGAGATCTGTGCGAGAGCCCTGTGACAGGCTGTACTA 1622  
 Db 1590 CAAGGACCGGCTGTGACCATGTAGAGGATCCGGGAACTCAAGCGGCGCACCCGAGCT 1649  
 1623 GAGCCCGAGAGAGACTGTGTGCGGAGATCCAGAGAGGCGCACAGACATGTGACTTA 1682  
 Db 1650 GCAAGACAGAGCTGTGCGCTGTGACATCTCTTGTGAGCTTCAACCGGCGCGCGATCT 1709  
 1683 CGAGTCAACAGAGAGCCCTTCAAGAACTTGAAGAGCGGAGAGTACGCAAGATGCGC 1742  
 Db 1710 GTTCAACTTCCTTCTTCTGTACGAAATGTGTCAAGAGCGGAGCTGTGACTGTGTGCA 1769  
 1743 CGCCGACACCAAGAGCTGAGAGCACTGACCGAGGCGGTGCAAGAGATGCGCATGAGAG 1802  
 Db 1770 CGCGAGCAAGATCTGTGCGATGTGCGCGCTTGA-----CGAGAGAGGTGACCAAGCGCT 1826  
 1803 CATGTGATCTGTGGGAGAGAGCCCGCAAGTTCGCTGTGCGCATCCAGAGAGAGACTGTGGA 1862  
 Db 1827 CGACTTGAATCTACAGACCGCGCGCGGAGGCTACAGACCCCTGTCAAAA---GCTGATGCA 1883  
 1863 GACCTGTGTGAGCCGACTACTGTGCAAGGCACTGTGATCCCGAGTGGAGATTGTGAAACAC 1922  
 Db 1884 GCTTTTCAGAGGCGGACCGGCAAGTGTGTGAGAGCTTCAAGAGCGGAGAACTGTGCGC 1943  
 1923 CCCCCCTGTGTGAGAGCTGTGTGTACAGCTGTGAGAGAGAGCCATATCGGCGCGAGAC 1982  
 Db 1944 CTTCCCGCTGTGAGAGAGCGCTCAAGCGCGCATCTATGACCGCGAGAGAAACGCGCTGCA 2003  
 1983 CTTTACGTGTGAGCGGCGCGCCCAACCGGAGACCAAGATGCGCAGAGGCTGTGTGAG 2042  
 Db 2004 ACAGGACCTCGACGAG---GCCCTCGGAGAGCGCGCGCTTGTGAGTGTCAACGACAC 2060  
 2043 CGACCGGCGCGGAGAGATGTGAGCTGTGACCGAGACCAACCAAGAGAGCGAGCT 2102  
 Db 2061 CTGTGTCAGAGGTATGAGGTGTGTGCGAGAGCTGTTCGCTTGTGCGGAGATGAGCTGCG 2120  
 2103 GCAAGCATTCAGAGCTGTGCGCTGTGAGAGACGCGGAGCGAGGTGAATCTGTGAGCGAG 2162  
 Db 2121 GTTGTGTCTTCAAGTCCGCGGAGGTATGAGAACCGGAGGTGCGCACCTGTGAGCCGACAT 2180  
 2163 CGAGTACGCTGTGAGATCATTCAGGCGCCAGCCG 2197  
 Db 2181 GAGAGAGACCGACGACGAGCGGAGGCGACGATG 2215

RESULT 12  
 US-10-522-037-2  
 ; Sequence 2, Application US/10522037  
 ; Publication No. US20050282166A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: LIBRAGEN  
 ; TITLE OF INVENTION: Method for the expression of unknown environmental DNA into adap  
 ; TITLE OF INVENTION: cellb.  
 ; FILE REFERENCE: B0149W0  
 ; CURRENT APPLICATION NUMBER: US/10/522,037  
 ; CURRENT FILING DATE: 2005-01-24  
 ; NUMBER OF SEQ ID NOS: 16  
 ; SOFTWARE: PatentIn version 3.1  
 ; SEQ ID NO 2  
 ; LENGTH: 37507  
 ; TYPE: DNA  
 ; ORGANISM: Artificial sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: DNA sequence of clone FS3-135.  
 US-10-522-037-2

Query Match 3.6%; Score 88.2; DB 6; Length 37507;  
Best Local Similarity 42.7%; Pred. No. 2.2e-06;  
Matches 1033; Conservative 0; Mismatches 1348; Indels 36; Gaps 10;

QY 3 CGAGCCCAATGCGCGGAGCCATGAGCCAGGCGCAACGCGCCACATCTTATGAGCG 62  
DB 12408 CGGCGAGGCGGTGAGGTGTGTGAACTGCTCTTCGCGAGGCCATTGCGCGCACTT 12467  
QY 63 CAGCACTTCAAGGCGCCCAAGCGCATCATCAAGTGTCTTCACTGCGCGAGAGGCCA 122  
DB 12468 GCGCGCGCTCGCGCGCTTGGCGCGCTTCACTGAGCTCGCGAGCGGCACTTACAGAA 12527  
QY 123 CATCGCGCGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 182  
DB 12528 CAGCGCATCGCGCTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 12587  
QY 183 CCAACGATGAGAGACTGACCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 242  
DB 12588 CCAAGCTCATGAGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 12647  
QY 243 CCG 302  
DB 12648 CTTTGAAGCAGG-----GGGTGCTCTGCGCGCTGCTTACCGCGCTTGGCGCGCA 12701  
QY 303 CCGCGAGCTGAGGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 362  
DB 12702 GCGCGGTGAGAGCTTCCGCTCAATGAGAGCATGCGCGCGAGATCGCGAGATGCTGTC 12761  
QY 363 CACCTGAACTTCCCGAGATCACTCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 422  
DB 12762 GTTTCGCGAGCGGTGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 12821  
QY 423 CGGCGCATGAGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 479  
DB 12822 GTTCGCGAGAGCGCATGCTTCTGCTCACCGCGCGCGCTGTCCGCGCTTGGCGCGC 12881  
QY 480 GATGAGCTTGCCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 539  
DB 12882 GCGAGTGTGTGTGAGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 12941  
QY 540 GGTGCGCGAGTACGAGCATCTCTGATGAGATCTGCGCGCGCGCGCGCGCGCGCG 599  
DB 12942 GTTCGCTGAGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13001  
QY 600 GCTGATGCG 659  
DB 13002 GAGGCGGTGAGCATCAACGACCGCGCTCCGTGCAACGCGTGTCCGCGAGGTGCG 13061  
QY 660 CACCTGGAATTCCTCCATCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 719  
DB 13062 CGCGCTCG 13118  
QY 720 GAGCG 779  
DB 13119 CATCAACCAATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13178  
QY 780 CATTCGAGAGAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 839  
DB 13179 CCGCGCATGAG 13238  
QY 840 CAACACCCCGGTGTTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 899  
DB 13239 GAGCAAG 13295  
QY 900 CTTTCGAGAGTGAACAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 959  
DB 13296 CCTGAGAGCACTCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 13355  
QY 960 CCG 1019  
DB 13356 GAGGCGCGAG 13415  
QY 1020 CAGGTGCG 1073

DB 13416 GAGCGCATGAG 13475  
QY 1074 CATCAACCAAG 1133  
DB 13476 CCGTGTCCCGCAAGCGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13535  
QY 1134 GGGCGAGCG 1193  
DB 13536 CTTCTTCCCGAGCG 13595  
QY 1194 CAACCCGAGATGATGATCTTACAGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1253  
DB 13596 GAG 13655  
QY 1254 CAGAGAGCG 1313  
DB 13656 CAGGCTTCGCGAGATGTTCAACCGACCTGTGCGCGCGCGCGCGCGCGCGCG 13715  
QY 1314 CCGCGAG 1373  
DB 13716 CCGCGCGAGCGCGCTGATACGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13775  
QY 1374 CAGCAAGTGAACCGTGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1433  
DB 13776 GAGCGGTGAGAGCTGTGAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13835  
QY 1434 CATCAAGAGAGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1493  
DB 13836 GCTCTCGAGAGCGCGTGTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 13895  
QY 1494 GCGCGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1553  
DB 13896 CCGGAGCG 13955  
QY 1554 CAGAGAGCGCGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1613  
DB 13956 GTACGCGCGCGAG 14014  
QY 1614 CGTGTACTAG 1670  
DB 14015 CCGAG 14074  
QY 1671 CAGTGAACCTTACAGATCTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1730  
DB 14075 AGTGAAG 14134  
QY 1731 CAG 1790  
DB 14135 CAG 14194  
QY 1791 CCGCATGAGAGAGATCGATCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1850  
DB 14195 CAG 14254  
QY 1851 GAG 1910  
DB 14255 GAG 14311  
QY 1911 GTTGTGAG 1970  
DB 14312 CCGGTGCGCGCGAGATCAACGCGCATGTCGCGCGCGAGATCACTTCTTCAAGTA 14371  
QY 1971 CCGCGCGAG 2030  
DB 14372 CAATTAAG 14431  
QY 2031 CCGGTAG 2090  
DB 14432 CAGATTAAG 14486  
QY 2091 GAG 2150

Db	14487	GCACCGGAGGTGGAGGGCCGCATCCGCCAGGCTATAGCGTGGACAAGACCGGTGGCTTT	14546
OY	2151	CGTGAACCGACAGCCAGTACGGCCTCGGCAATCATTCAGGCCACGCCGACAAGAGGAGAG	2210
Db	14547	CATAGAGGGCCACCGACCAACGCTCTCAACCATTCGGCCACCTGTGTTGGGCGCGACCTT	14606
OY	2211	CGAGCTGTGTAACCAATCATTCGAGCAGCTGATCCAAAGAGAGAGAGTGTACTTGAGCTG	2270
Db	14607	CATGTGGACGAGCGCGTTCTGGACAACAAGACATTCGTATGGGCATCCAGCTCTCGGCGCC	14666
OY	2271	GGTCCCC---GCCCAAGGGCATTCGGCGGCAACGAGCAATGACAACCTGTGTAGCA	2327
Db	14667	CAACGCGATGCGCTCTTCGCGACAACGATCGCGGGCCCTTGAAAGACCTGTGGCGCGCA	14726
OY	2328	GGGCAATCCGCAAGGTGCTGTTCTTGAGCGGCATCGATGGCGGCATCGTATCTACCAAGTA	2387
Db	14727	GGCGCGGCACTTCCAGGCGCGTGGCTGATCGATCGAGGGGCTTACAGCATGGAAGGGGA	14786
OY	2388	CATGAGAGCACTGTACG	2404
Db	14787	CTACCCCGAGCTGCCCG	14803

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RESULT 13
US-11-058-727-5
; Sequence 5, Application US/11058727
; Publication No. US20050261483A1
; GENERAL INFORMATION:
; APPLICANT: Andre R. Abad
; APPLICANT: Ronald D. Flannagan
; APPLICANT: Rafael Herrmann
; APPLICANT: Theodore W. Kahn
; APPLICANT: Albert L. Lu
; APPLICANT: Billy Fred McCutchen
; APPLICANT: James K. Presnall
; APPLICANT: James F.H. Wong
; APPLICANT: Cao-Guo Yu
; TITLE OF INVENTION: Genes Encoding Proteins with Pesticidal
; FILE REFERENCE: Activity
; FILE REFERENCE: 35718/287809
; CURRENT APPLICATION NUMBER: US/11/058,727
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: 60/391,786
; PRIOR FILING DATE: 2002-06-26
; PRIOR APPLICATION NUMBER: 60/460,787
; PRIOR FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: 10/606,320
; PRIOR FILING DATE: 2003-06-25
; NUMBER OF SEQ ID NOS: 134
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO: 5
; LENGTH: 2010
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(2010)
; OTHER INFORMATION: Maize optimized Cpy1218-1
; FEATURES:
; NAME/KEY: misc_feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: mol1218-1
; US-11-058-727-5

Query Match          3.5%; Score 85.2; DB 7; Length 2010;
Best Local Similarity 43.5%; Pred. No. 7.3e-06;
Matches 491; Conservative 0; Mismatches 633; Indels 6; Gaps 2

0Y      197  ACTGACCGAGCGCCGAGCACTTCTTCGCGAGGAGCACTTGAGCTTCCCGCCAGGCGCAAG 256
Db      881  ACCCATGAGACCAAGGCCCACTACCCGCGAGGTATACACCAACCGCTCGGCGCG 940
0Y      257  CCGCGAGATTCCCGACGAGCAAGAACCGCGCCCAACGAGCCCAACGACCGCGAGCTTCAG 316

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Db	941	TGAACGTGTCTCCATCGGCTCTTGTTGTAACGAAGGCCCAAGCTTGGGGTGTACAGT	1000
Oy	317	TGCGCGCGCAACCCCCGACGAGGCGCGGCGCCGAGCGCCAGAGCACTCTGAATTCC	376
Db	1001	CCTCCGTGATCCGGCCCCCGCACGTGTTCCGACTACATCACCGGCTTCAACGTTATACCC	1060
Oy	377	CCCAAGATCAACCTGTGGGAGCGGCCCTGGTGAACATCAAGTGGGGCGGCAGATTCAGG	436
Db	1061	AGTCCCGTTCATCTCTCCGCGCGCTACATCGGCACCTGGGCGGGCACCAAGATCTCTCT	1120
Oy	437	AGGCGCTGCTGGAACCGGCGCGCCGACGACACCGTGTGAGAGATGAGCTGCGCGGCA	496
Db	1121	ACACACCGGTGTCCCGGGGCTTCAACCTCCAGCAGATGTACGGCACCAAGAACCTCC	1180
Oy	497	AGTGAAGGCCAAGATGATCGGCGGCATCGGCGGCTTATATAGGTGGCCAGTACGACC	556
Db	1181	ACTCCACCTCCACTTGACTTCACCAATACGACATCTACMAAGACCTCTCCACAGACG	1240
Oy	557	AGATCTGTATGATGATCTGGCGGCAAGAAAGGCATCGGCAACCGTGTATCGGCGCCACCC	616
Db	1241	CCGTGCTCTGACAT--CGTGTACCCCGGCTACACCTTACATCTTTCGGGATGCGGG	1297
Oy	617	CCGTGAACATCATCGGCGCGCAACATGTGTGACCCAGCTGGCTGACCTTGAATCTTCCCA	676
Db	1298	AGGTGAGTCTTATGTGTGAACAGCTCAACAAACCCCGAAGACCTCCAAATACAAAC	1357
Oy	677	TCAGCCCCATGAGACCGGTGCGGTGAAGCTGAAGCCCGGATGAGCGGCCCCAAGTGA	736
Db	1358	CCGTGTCCAAAGATCATCTCCCTTCCACCCCGCACTCCGAGCTGAGCTCCCCCGAGA	1417
Oy	737	AGCAGTGGCCCCCTACCGAAGGAAGATCAAGGCGCTGACCGGCATCTGGAGGAGATGG	796
Db	1418	CCTCCGACGACCCCACTACGAGTCTTACTCCACCGCTTGGCACTACCTTCATCC	1477
Oy	797	AGAAAGAGGGAGATTCACCAAGATCGGCCCCGAGAAACCTCTACAAACCCCGGTTCG	856
Db	1478	CCGCCACCGGAAACACACCGGGCTCGTGGCGGTGTTCTCTTGAACCCACGCTGTGAG	1537
Oy	857	CCATTCAGAGAAGGACGACACCAATGGGCGCAAGCTGTGAACTTCCGCGAGCTGAACA	916
Db	1538	ACCTCAACAAACATCTACTCCGACAAAGATCACCCAGATCCCGGCGTGAAGTGTGGG	1597
Oy	917	AGCGCACCCAGAGCTTCTGGGAGGTGACGCTGGGCAATCCCCACCCCGCGGGCGTAAGA	976
Db	1598	ACAACTTCCCTTGTGTGCGGTGTGAAGGGGCCCCGGGCAACCGGCGGCACTCTTCC	1657
Oy	977	AGAAAGAGCGTAGACCGTGTGACGTTGGGCGACGCGCTACTTGAAGCTGCGCTGAGACG	1038
Db	1658	AGTACACCGGCTCCACCGGGCTCGGTGGGCACTCTTCTGTGCGCGCTACAGGGCTCGGCC	1717
Oy	1037	AGGACTTCCGAGAGTACACGCGCTTACCAATCCCGAGCATCAACACGAGACCCCCGGCA	1098
Db	1718	TGGAGAAAGCGGCAAGTACCGGCGGCGCTCCGCTACGCCACTGACGCGCAGACTGTGC	1777
Oy	1097	TCCGTACCAAGTACAGCGTGTGCCCCGAGGCTGGAAGGGAGGCCCAAGCATCTTCCAGA	1156
Db	1778	TTCAAGTGAAGACGCGCCAGATTCAGATGCTCCAAAGACCATAGACCCCGGCGAGGACTCA	1837
Oy	1157	GGAGCATGAC---CAAGATCTCTGAGGCGCTTCCGCGCCCGGACACCCCGAGATCGTATCT	1213
Db	1838	CCTCCAGAACCTTCAAGGTGGCGAGCGCATACACACCTTCAACCTTGGCCACGACCTCT	1897
Oy	1214	ACCAAGCCCCCTGTACGTGGGACAGCGACTTGAAGATCGGCACGACCGCGCCAAAGTCG	1273
Db	1898	CCCTGCGCTTCAAGACAACTCGGCGAGGACCCCACTCCACCTCTCCGGCACTCGGT	1957
Oy	1274	AGGAGCTGCGAAGCATCTGCTGTGGCTGTGGGCTTCAACACCCCGAGCAAG	1323
Db	1958	ACGTGACCGGATCGAGTTCAATCCCGGTGACGAGACTTAAGAGGCGCAG	2007

## RESULT 14

US-11-108-389-5  
 ; Sequence 5, Application US/11108389  
 ; Publication No. US20050261188A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Andre R. Abad  
 ; APPLICANT: Ronald D. Flannagan  
 ; APPLICANT: Rafael Herrmann  
 ; APPLICANT: Theodore W. Kahn  
 ; APPLICANT: Albert L. Lu  
 ; APPLICANT: Billy Fred McNeil  
 ; APPLICANT: James K. Presnail  
 ; APPLICANT: James F.H. Wong  
 ; APPLICANT: Cao-Guo Yu  
 ; TITLE OF INVENTION: Genes Encoding Proteins with Pesticidal  
 ; FILE REFERENCE: 35718/291049  
 ; CURRENT APPLICATION NUMBER: US/11/108,389  
 ; PRIOR FILING DATE: 2005-04-18  
 ; PRIOR APPLICATION NUMBER: 60/391,786  
 ; PRIOR FILING DATE: 2002-06-26  
 ; PRIOR APPLICATION NUMBER: 60/460,787  
 ; PRIOR FILING DATE: 2003-04-04  
 ; PRIOR APPLICATION NUMBER: 10/606,320  
 ; PRIOR FILING DATE: 2003-06-25  
 ; NUMBER OF SEQ ID NOS: 134  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 5  
 ; LENGTH: 2010  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; NAME/KEY: CDS  
 ; LOCATION: (1)...(2010)  
 ; OTHER INFORMATION: Maize optimized Cpy1218-1  
 ; NAME/KEY: misc\_feature  
 ; LOCATION: (0)...(0)  
 ; OTHER INFORMATION: mol1218-1  
 ; US-11-108-389-5

Query Match 3.5%; Score 85.2; DB 7; Length 2010;  
 Best Local Similarity 43.5%; Pred. No. 7.3e-06;

Matches 491; Conservative 0; Mismatches 633; Indels 6; Gaps 2;

197 ACTGACCGAGCGCGAGGCACTTCTCCGCGAGGAGCTGAGCTTCCCGGAGGCAAG 256  
 881 ACCCATGAGAGCAAGGCTCAAGCGGAGGCTGACCGACCGGCTGAGTCAAGT 940  
 257 CCCGCGAGTTCCTCCGAGGAGCAAGCGGCAAGCGGCAAGCGGCGAGCTGAGG 316  
 941 TGAACGATGCTCTCATCGGCTCTTGATGACGACGAGCCCAAGCTTGGCGATGAGT 1000  
 317 TGGCGGCGAGAACCGCGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 376  
 1001 CCTCCGATGATCGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1060  
 377 CCCGATGACCTGATGAGCGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 436  
 1061 AGTCCCGGCTCATCTCTCCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1120  
 437 AGGCGCTGCTGAGACCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 496  
 1121 ACCACCGGCTGCTCCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1180  
 497 AGTGAAGCCCAAGATGATGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 556  
 1181 ACTCCACCTCCACCTTCACTTCACTTCACTTCACTTCACTTCACTTCACTTCACTT 1240  
 557 AGATCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 616  
 1241 CCGTGTCTCTGACAT---CGTGTACCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1297  
 617 CCGTGAACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 676

1298 AGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1357  
 677 TGAAGCCCATGAGACCGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 736  
 1358 CCGTGTCCAGAGACATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1417  
 737 AGCATGCGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 796  
 1418 CCTCGACCGACCGACATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1477  
 797 AGAAGAGGCGAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 856  
 1478 CCGACCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1537  
 857 CCATCAAGAGAGGACGACGACGACGACGACGACGACGACGACGACGACGACGACGAC 916  
 1538 ACCTCAACACACATCTACTCTCCGACGACGACGACGACGACGACGACGACGACGAC 1597  
 917 AGCGCACCGAGACTTCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 976  
 1598 ACAACCTCCCTTCTGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1657  
 977 AGAAGAGGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1036  
 1658 AGTACACCGCTTCACTCCGCTCCGCTCCGCTCCGCTCCGCTCCGCTCCGCTCCGCTCC 1717  
 1037 AGGACTTCGCGAAGTACACCGCTTCACTCCGCTCCGCTCCGCTCCGCTCCGCTCCGCT 1096  
 1718 TGAAGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1777  
 1097 TCCGCTACAGTACACCGCTTCACTCCGCTCCGCTCCGCTCCGCTCCGCTCCGCTCCG 1156  
 1778 TCCAGTGAACGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1837  
 1157 GCAGATGAC---CAAGATCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1213  
 1838 CTTCAGAGCTTCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1897  
 1214 ACCAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCG 1273  
 1898 CCTCGCGCTTCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1957  
 1274 AGAGCTGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1323  
 1958 ACCTGACCGCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2007

RESULT 15

US-11-075-185-57

; Sequence 57, Application US/11075185

; Publication No. US20050266434A1

; GENERAL INFORMATION:

; APPLICANT: REEVES, CHRISTOPHER D

; APPLICANT: JULIEN, BRYAN

; TITLE OF INVENTION: BIOSYNTHETIC GENE CLUSTER FOR AMBRUTICINS

; FILE REFERENCE: 010099.03

; CURRENT APPLICATION NUMBER: US/11/075,185

; PRIOR FILING DATE: 2005-03-07

; PRIOR APPLICATION NUMBER: US 60/551,103

; PRIOR FILING DATE: 2004-03-08

; PRIOR APPLICATION NUMBER: US 60/568,290

; NUMBER OF SEQ ID NOS: 61

; SOFTWARE: PatentIn version 3.3

; SEQ ID NO 57

; LENGTH: 1434

; TYPE: DNA

; ORGANISM: Sorangium cellulosum

US-11-075-185-57

Query Match 3.3%; Score 80.6; DB 7; Length 1434;

Best Local Similarity 44.6%; Pred. No. 4.1e-05;  
Matches 449; Conservative 0; Mismatches 549; Indels 9; Gaps 3;

Job time : 302.667 secs

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QY 224 TCCGGAGAGACTGGCTTTCCCGCAAGGAGCCCGGAGATTCCCGCAAGCAAGAAC 283
Db 176 TACGGCGATGCGCGCGACACCCCGCAAGCCCGCGCTGCGCTGCTC 235
QY 284 GGGCCAAACGCCCAACAGCCGAGCTGACAGTGGCGGCGACAAACCCCGCAGCGAG 343
Db 236 CCGCGCGCGCGCGCGAGACACTGAGGAGACGAGATGCGACCGCTTTGCGCTGGCGG 295
QY 344 CCGGCGCGCGCGCGCGAGCGACCTTGAATTCCCGCATCACTTG--TGGCAGCGCC 400
Db 296 TCGCGCTCGGCGCGCGAGCGCGAGCGGCTGACCCCGCGCTTCCCTGGGCGGAGCTCG 355
QY 401 CCGTGTGAGCATCAAGTGGGCGGCGACATCAAGAGCGCCTGTGTGACACCGGCGCG 460
Db 356 GCGCGCGCGCGCGCTGACGCTGACCCCGCGCGCTGGCGACCTGACAAAGCGCTGT 415
QY 461 ACGACACCGTGTGAGAGATGAGCTGCGCGCAATGGAAGCCCAAGATGATCGCG 520
Db 416 CGTTGATCTACACAGAGCGCGCGCGACCTGGCGGCTCGCGCGCTGACGTGCGGAGT 475
QY 521 GCATCGCGCGCTTCAATCAAG--GTGCGCGAGTACGACCAAGATCTGATCGAGATCG 577
Db 476 GCGCTTCCGCGCGCGCGAGGTTCTTCAAGCACAAGAGTGTGCGCGCTGCTCGCAAGAG 535
QY 578 GCAAGAGGCGCATCGGACCGTGTGATGCGGCCCCCGTGAACATCATCGGCGCGCA 637
Db 536 CCATCGAGAGGAAGGCGGTGACGCGACGCTCTTTCAGCGCGAGACGCTGCCGTTCG 595
QY 638 ACATGCTGACCGAGCTGGCTGCAACCTTGAATTCAGCCCATCGAGCCGATCGAGTGC 697
Db 596 AAGAAAGACTCGAGCTCGTGTGCGACGCTCATGAGCGCCAAAGGCTCATC---CCGAG 652
QY 698 CCGTGAAGCTGAAGCCCGGCGATGAGCGGCCCAAGGTGAAGCAGTGCGCTTGAACGAG 757
Db 653 CCGCGCGGAGAGACCGCGCGGAGATGTGCGGAGGTCTGAGAGAGTGGCGGCGCGC 712
QY 758 AAGAAATCAAGGCGCTGACCGCATGTGAGAGAGATGAGAAAGAGGCGCAAGATCA 817
Db 713 TCGAGTCCAGAGTCCGACCGCGCTGCTGCGCGCGCTGCGCGGAAACAGAGCCCGC 772
QY 818 AGATGCGGCGCGCGGAAACCCCTTCAACACCCCGGTGTCGATCAAGAAAGAGACAGCA 877
Db 773 TCGCGGTCTTCAAGAACTTGAATGAGAGCGACCATCCGCAAGAACTGAAGGAGTGG 832
QY 878 CCAAGTGGCGCAAGCTGTGGAATTCCGCGAGCTGAACAAGCGCACCCAGACTTCTGG 937
Db 833 ACGCGAGCGGCGCGCGCTGTGTCGCGGACAAAGCTTATTCTGGCGAAACAGACGGA 892
QY 938 AGGTGAGCTGTGGCATTCGCCCAACCCCGCGGCTTGAAGAAAGAAAGACGTGACGTGC 997
Db 893 GGCACGAGTGGAGCGTGGCATCTCTGTGACCAAGTCGGGCTTGATGGCGGAGAGGTGC 952
QY 998 TGGACGTGGGCGAGCGCTTACGCGTGCCTTGAAGAGGACTTCCGCAAGTACACCG 1057
Db 953 TCTACAGCTTCAATGAGCGGCGATTTGAGCTGCTCAAGCTCTCCGCAACCGGCTCC 1012
QY 1058 CCTTACCATTCGCCAGCATCAACAGAGACCCCGCGCATCCGCTACAGTACAACTGC 1117
Db 1013 TCTTCTTGACACCGAGGTGTGTGAGTGAATCTCGATGCTCGTCAATCCGCTGAGCTGC 1072
QY 1118 TGGCCGAGGCTGAGAGGCGAGCGCCAGCATTTTCAAGAGCAGATGACCAAGATCTGG 1177
Db 1073 TGTTCAGCGCGAGCTCGGCGGCGGCGAGCATCAACCGCGCTGAGCTTACGCCAAG 1132
QY 1178 AGCCCTTTCGCGCGCGCGAAGCCCGAGATGTGATCTAACAGGCGCGCC 1224
Db 1133 CGAATTTCATCGAGCGACCGAGAGAGACGCTGCTCATCTGATCACCC 1179
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Db 181 CCGGCGCCGACCGGACCGGTAGCTTCACTTCCCGGAGTACCTGTGGACG 240  
 QY 398 GCGCCCTGGTGGATCAAGTGGGGGGGCAAGTCAAGAGGCGCTGTGGACACGGGG 457  
 Db 241 GCGCCCTGGTGGATCAAGTGGGGGGGCAAGTCAAGAGGCGCTGTGGACACGGGG 300  
 QY 458 CCGACGACCCGTGTGGAGAGATGAGCTGCGCGGCAAGTGAAGCCCAAGATGATG 517  
 Db 301 CCGACGACCCGTGTGGAGAGATGAGCTGCGCGGCAAGTGAAGCCCAAGATGATG 360  
 QY 518 GCGGATCGGGCGCTTCAACAGTGGCCAGTACGACCAAGATCTGATCGAGATCTGG 577  
 Db 361 GCGGATCGGGGGCTTCAACAGTGGCGGACGATACGACCAAGATCCCGTGGAGATCTGG 420  
 QY 578 GCGAAGAGGCTATCGGACCGTGTGTATGCGGCCCCACCCCGTGAACATCATGCGCGCA 637  
 Db 421 GCGCAAGGCGCATCGGACCGTGTGTATGCGGCCCCACCCCGTGAACATCATGCGCGCA 480  
 QY 638 ACATGCTGACCCGCTGGGCTGCAACCTGAACTTCCCATCAGCCCATCGAGACCGTGC 697  
 Db 481 ACCTGCTGACCCGATCGGCTGCAACCTGAACTTCCCATCAGCCCATCGAGACCGTGC 540  
 QY 698 CCGTGAAGCTGAAGCCCGGATGGAAGGCGCCCAAGGTGAAGAGTGGCCCTTGAACGAG 757  
 Db 541 CCGTGAAGCTGAAGCCCGGAGTGAAGGCGCCCAAGGTGAAGAGTGGCCCTTGAACGAG 600  
 QY 758 AGAAGATCAAGGCGCTGACCGCATCTTGGAGAGAGATGAGAAAGAGGCGCAAGATCA 817  
 Db 601 AGAAGATCAAGGCGCTGAGTGAAGATCTGACCGAGATGAGAAAGAGGCGCAAGATCA 660  
 QY 818 AGATCGGCGCCCGAAGCCCTTACCAACACCCCGTGTTCGCTACCAAGAAAGAGAGCA 877  
 Db 661 AGATCGGCGCCCGAAGCCCTTACCAACACCCCGTGTTCGCTACCAAGAAAGAGAGCA 720  
 QY 878 CCAAGTGGCGGAGCTGTGTGAATTCGCGAGCTGAACAAAGCGACCCAGACTTCTGG 937  
 Db 721 CCAAGTGGCGGAGCTGTGTGAATTCGCGAGCTGAACAAAGCGACCCAGACTTCTGG 780  
 QY 938 AGGTGAGCTGGGCGATCCCCACCCCGCGGCTTGAAGAAAGAAAGAGAGTGTGACG 997  
 Db 781 AGGTGAGCTGGGCGATCCCCACCCCGCGGCTTGAAGAAAGAAAGAGAGTGTGACG 840  
 QY 998 TGAAGCTGGGCGAGCGCTACTTCAAGCGTGGCCCTGAGCAGAGACTTCCGCAATGAC 1057  
 Db 841 TGAAGCTGGGCGAGCGCTACTTCAAGCGTGGCCCTGAGCAGAGACTTCCGCAATGAC 900  
 QY 1058 CTTTCAACATCCCAAGATCAACAGAGACCCCGGCGATCGCTACCAAGTCAACGTGC 1117  
 Db 901 CTTTCAACATCCCAAGATCAACAGAGACCCCGGCGATCGCTACCAAGTCAACGTGC 960  
 QY 1118 TGGCCCAAGGCTGGAAGGGGAGGCCCGAGCATTTTCCAGAGACATGACCAATCTGG 1177  
 Db 961 TGGCCCAAGGCTGGAAGGGGAGGCCCGGCGCATTTTCCAGAGACATGACCAATCTGG 1020  
 QY 1178 AGGCTTTCGGCGCCCGGAACCCCGAGATGGTGAATTAACAGGCGCCCTGTAGTGGGCA 1237  
 Db 1021 AGGCTTTCGGCGAGAGAGACCCCGACATCGTGAATTAACAGGCGCCCTGTAGTGGGCA 1080  
 QY 1238 GCGACCTGAGATCGGCGAGACACCGCGCAAGATCGAGAGCTGCGCAACCTGTGC 1297  
 Db 1081 GCGACCTGAGATCGGCGAGACACCGCGCAAGATCGAGAGCTGCGCAACCTGTGC 1140  
 QY 1298 GCTGGGGCTTCAACACCCCGCAAGAGACCAAGAGAGGCGCCCTTCTGTCCCATG 1357  
 Db 1141 GCTGGGGCTTCAACACCCCGCAAGAGACCAAGAGAGGCGCCCTTCTGTCCCATG 1200  
 QY 1358 AGCTGACCCCGCAAGTGAACGTGACGCGCATTCGAGCTGCGCGAGAGAGAGAGCTGGA 1417  
 Db 1201 AGCTGACCCCGCAAGTGAACGTGACGCGCATTCGAGCTGCGCGAGAGAGAGAGCTGGA 1260  
 QY 1418 CCGTGAACGACATCAAGAGCTGTGGCAAGCTGAACCTGGGCAAGCATTAACCCG 1477

Db 1261 CCGTGAACGACATCCAGAAAGCTGTGGGCAAGCTGAATCGGGCAGACGATCTACCGG 1320  
 QY 1478 GCATCAAGGTGGCGCAGCTGTGCAAGCTGTGCGGCGCGCAAGGCGCTGACGACATG 1537  
 Db 1321 GCATCAAGGTGAAGAGCTGTGCAAGCTGTGCGGCGCGCAAGGCGCTGACGAGATG 1380  
 QY 1538 TGGCCCTGACCCGAGAGGCGCGAGCTGAGCTGGCGAGAACCGGAGATCTGTGCGGAG 1597  
 Db 1381 TGGCCCTGACCCGAGAGGCGCGAGCTGAGCTGGCGAGAACCGGAGATCTGTGAGGAG 1440  
 QY 1598 CCGTGAACGCGCTGTACTACGAGCCCGCAAGAGAAAGAACTGTGGCGGAGATCTGA 1657  
 Db 1441 CCGTGAACGAGGTGTACTACGAGCCCGCAAGAGAAAGAACTGTGGCGGAGATCTGA 1500  
 QY 1658 GCGACGACCAAGTGAACCTACAGATCTACAGAGAGCGCTTCAAGAACTGAAGACGGA 1717  
 Db 1501 GCGACGACCAAGTGAACCTACAGATCTACAGAGAGCGCTTCAAGAACTGAAGACGGA 1560  
 QY 1718 AGTACGCGCAAGATGCGGACCGGCCCAACGACGACGATGAAGCATGACCGAGCGTGC 1777  
 Db 1561 AGTACGCGCGCATGCGCGCGCGCCACACCAAGCGATGAAGCATGACCGAGCGTGC 1620  
 QY 1778 AGAAGTCCGCTATGAGAGCATCTGTATCTTGGGGCAAGACCCCGCAAGTTCCGCTGCCA 1837  
 Db 1621 AGAAGTGAAGCACCGAGAGCATCTGTATCTTGGGGCAAGATCCCGCAAGTTCAAGCTGCCA 1680  
 QY 1838 TCCAGAGAGGACCTTGGAGAGACCTGGTGAACCGACTATGAGCGGACCTGTGATCCCG 1897  
 Db 1681 TCCAGAGAGGACCTTGGAGAGGCTGGTGAATGAGATCTGGGAGGCACTGTGATCCCG 1740  
 QY 1898 AGTGGAGTTCTGTGAACACCCCGCTGTGTGAAGCTGTGTACAGCTTGAAGAGAGAG 1957  
 Db 1741 AGTGGAGTTCTGTGAACACCCCGCTGTGTGAAGCTGTGTACAGCTTGAAGAGAGAG 1800  
 QY 1958 CCATCATCGGCGCCGAGACCTTCTACGTGGAAGCGCGCGCCCAACCGCGAGACCAAGATG 2017  
 Db 1801 CCATCTGTGGCGCGCAGACCTTCTACGTGAAGCGCGCGCCCAACCGCGAGACCAAGCTG 1860  
 QY 2018 GCAAGGCGGCGTACGTGACCGAGCCGGGCGCGGCAAGAGATCTGAGCTGACCGAGACGA 2077  
 Db 1861 GCAAGGCGGCGTACGTGACCGAGCCGGGCGCGGCAAGAGATCTGAGCTGACCGAGACGA 1920  
 QY 2078 CCAACCAAGAAACCGAGCTGCAAGGCGATCAAGCTGGCCCTTGCAGAGACAGCGGCGTGAAG 2137  
 Db 1921 CCAACCAAGAAACCGAGCTGCAAGGCGATCAAGCTGGCCCTTGCAGAGACAGCGGCGTGAAG 1980  
 QY 2138 TGAACATCTGTGACCGACAGCGAGTACGCTGTGGGATCATCCAGGCGCCGCAAGAA 2197  
 Db 1981 TGAACATCTGTGACCGACAGCGAGTACGCTGTGGGATCATCCAGGCGCCGCAAGAA 2040  
 QY 2198 GCGAGAGCGAGCTGTGAACAGATCATGAGAGCGCTGATCAAGAGAGAGAGTGTACC 2257  
 Db 2041 GCGAGAGCGAGCTGTGAAGCGAGATCATGAGAGCGCTGATCAAGAGAGAGAGTGTACC 2100  
 QY 2258 TGAAGCTGGTGGCCCGCCCAAGAGGCGATCGCGGCAACGACAGATGACCAAGCTGTGA 2317  
 Db 2101 TGAAGCTGGTGGCCCGCCCAAGAGGCGATCGCGGCAACGAGCGAGTGAACCACTGTGA 2160  
 QY 2318 GCAAGGCGATCGGCAAGGTGTCTTCTGAGCGGATTCGATGGCGGCAATCTGTACTACC 2377  
 Db 2161 GCGCCGCGCATCGGCAAGGTGTCTTCTGAGCGGATTCGATGGCGGCAATCTGTACTACC 2220  
 QY 2378 AGTACATGAGACGACTGTAGCTGTGGGAGCGGCGGCGCTGAGATCGATTAAAGCTTCCG 2437  
 Db 2221 AGTACATGAGACGACTGTAGCTGTGGGAGCGGCGGCGCTGAGATCGATTAAAGCTTCCG 2280  
 QY 2438 GGGCTAGACCGGTGAATTC 2457  
 Db 2281 GGGCTAGACCGGTGAATTC 2300

RESULT 2  
 US-09-475-515-82

Sequence 82, Application US/09475515A  
Patent No. 6602705  
GENERAL INFORMATION:  
APPLICANT: BARNETT, Susan  
APPLICANT: ZUR MEGEDE, Jan  
APPLICANT: SRIVASTAVA, Indresh  
APPLICANT: LIAN, Ying  
APPLICANT: HARTOG, Karin  
APPLICANT: LIU, Hong  
APPLICANT: GREER, Catherine  
APPLICANT: SIEBY, Mark  
APPLICANT: WALKER, Christopher  
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION  
FILE REFERENCE: 1621.002  
CURRENT APPLICATION NUMBER: US/09/475,515A  
CURRENT FILING DATE: 1999-12-30  
NUMBER OF SEQ ID NOS: 90  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 82  
LENGTH: 2306  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence:  
OTHER INFORMATION: FS(-).protomod.RTopt.YM  
US-09-475-515-82

Query Match 82.2%; Score 2019.2; DB 3; Length 2306;  
Best Local Similarity 93.2%; Pred. No. 0; Mismatches 138; Indels 18; Gaps 3;  
Matches 2150; Conservative 0;

170 GCGGCAAGAGAGGCGCACAGTGAAGACTGACCGAGCGCCAGCCACTTCTTCGCG 229  
1 GCGGCGCGGAGAGACCAATGAATGAAATGCACTGAGAGACAGGCTAATTCTTCGCG 60  
230 AGAAGCTGAGCTTCCCGAGGCGCAAGCGCGCGAGTTCCCGAGAGACAGACCGCGCA 289  
61 AGAAGCTGAGCTTCTGCAAGGCGCAAGCGCGCGAGTTGAGAGAGAGACCGCGCA 120  
290 ACAAGCCCAACAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 343  
121 ACAAGCCCAACAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 180  
344 CCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 397  
181 CCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 240  
398 GCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 457  
241 GCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 300  
458 CCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 517  
301 CCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 360  
518 GCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 577  
361 GCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 420  
578 GCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 637  
421 GCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 480  
638 ACAAGCTGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 697  
481 ACAAGCTGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 540  
698 CCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 757  
541 CCGGCGCGGAGCGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 600  
758 AGAAGATCAAGGCGCTGACCGGCGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 817

601 AGAAGATCAAGGCGCTGAGAGATCTGACCGAGATGAGAGAGGCGCAAGATGACGA 660  
818 AGATCGCGCGCGAGAAACCCCTTACACACCCCGGTGTTCCCATCAAGAAAGACAGCA 877  
661 AGATCGCGCGCGAGAAACCCCTTACACACCCCGGTGTTCCCATCAAGAAAGACAGCA 720  
878 CCAAGTGGCGCAAGCTGAGTGAAGTGGAGTGGAGTGAAGAGCGACCCAGACCTTCTGG 937  
721 CCAAGTGGCGCAAGCTGAGTGAAGTGGAGTGGAGTGAAGAGCGACCCAGACCTTCTGG 780  
938 AGGTGAGCTGGGATCCCGACCCCGCGGCTGAGAGAGAGAGAGAGAGAGTGAAGTGG 997  
781 AGGTGAGCTGGGATCCCGACCCCGCGGCTGAGAGAGAGAGAGAGAGAGTGAAGTGG 840  
998 TGAAGCTGGGAGCGCTTACTGAGGTCCTTGAAGAGAGAGAGAGAGAGAGTGAAGTGG 1057  
841 TGAAGCTGGGAGCGCTTACTGAGGTCCTTGAAGAGAGAGAGAGAGAGAGTGAAGTGG 900  
1058 CTTTCAACATCCCGAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1117  
901 CTTTCAACATCCCGAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 960  
1118 TGCCCAAGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1177  
961 TGCCCAAGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1020  
1178 AGCTTCTGCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1237  
1021 AGCTTCTGCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1080  
1238 GCGAGCTGAGAGATCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1297  
1081 GCGAGCTGAGAGATCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1140  
1298 GCTGGGCTTCAACACCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1355  
1141 GCTGGGCTTCAACACCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1200  
1356 GCGAGCTGAGAGATCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1411  
1201 GCTAAGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1260  
1412 GCTGAGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1471  
1261 GCTGAGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGAAGTGG 1320  
1472 ACCCGGCGATCAAGAGTGGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGG 1531  
1321 ACCCGGCGATCAAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1380  
1532 ACAATGTCCTGAGCGAGAGAGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGG 1591  
1381 AGGTGATCCCGTGAAGAGAGAGCGAGAGTGAAGTGGCGGCGGCGGCGGCGGCGGCGGCGG 1440  
1592 GCGAGCGCGTGAAGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1651  
1441 AGAGCGCGTGAAGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1500  
1552 AGAGCGCGTGAAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1711  
1501 AGAGCGCGTGAAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1560  
1712 CCGGCAAGTGAAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1771  
1561 CCGGCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1620  
1772 CCGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1831  
1621 CCGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1680  
1832 TGCCATCAAGAGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1891

Db 1681 TGCCCATCCAGAGAGAGACCTGGAGAGCGCTGTGTGATGTGATCTGGACAGCCCACTTGA 1740  
 QY 1892 TCCCGAGTGGAGGTTGTGTAACACCCCCCTGTGTGAAGCTGTGTGATCCAGCTTGAGA 1951  
 Db 1741 TCCCGAGTGGAGGTTGTGTAACACCCCCCTGTGTGAAGCTGTGTGATCCAGCTTGAGA 1800  
 QY 1952 AGAGCCCATCATCGAGCGCGCGAGACCTTCTACGTGACCGCGCGCAACCGCGAGACCA 2011  
 Db 1801 AGAGCCCATCATCGAGCGCGCGAGACCTTCTACGTGACCGCGCGCAACCGCGAGACCA 1860  
 QY 2012 AGATCGGACAGCGCGCTGATGTAACGACCGCGCGCGCGAGAAAGATCTGAGCTTGAACG 2071  
 Db 1861 AGCTGGGCAAGGCGCGCTGATGTAACGACCGCGCGCGCGAGAAAGTGTGTGAGCATGCGCG 1920  
 QY 2072 AGACCAACCAACGAGAGACCGAGCTGAGAGCGCATTCAGAGCTGAGCGCTGAGAGACAGCGGCA 2131  
 Db 1921 ACACCAACCAACGAGAGACCGAGCTGAGAGCGCATTCAGAGCTGAGCGCTGAGAGACAGCGGCA 1980  
 QY 2132 GCGAGGTGAACATCTGTGACCGACAGCAGCAGTACCGCTTGGACATCATTCAGAGCGCGCA 2191  
 Db 1981 TGGAGGTGAACATCTGTGACCGACAGCAGCAGTACCGCTTGGACATCATTCAGAGCGCGCA 2040  
 QY 2192 ACAAGAGCAGAGCGAGCTGTGTGAACCAATCATTCAGAGCTGATTCAGAGAGAGAGAG 2251  
 Db 2041 ACAAGAGCAGAGCGAGCTGTGTGAACCAATCATTCAGAGCTGATTCAGAGAGAGAGAG 2100  
 QY 2252 TGTACTGAGCTGTGTGTGCG 2311  
 Db 2101 TGTACTGAGCTGTGTGTGCG 2160  
 QY 2312 TGTGTGAGCAAGGCGCATCCGCAAGGTGTGTCTGTGACCGGATCGATGAGCGGATCGTA 2371  
 Db 2161 TGTGTGAGCGCGCGCATCCGCAAGGTGTGTCTGTGACCGGATCGATGAGCGGATCGTA 2220  
 QY 2372 TCTACAGATGATGACGACCTGTGATGTGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2431  
 Db 2221 TCTACAGATGATGACGACCTGTGATGTGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2280  
 QY 2432 TTCCCGGGGCTGACACCGGTGAATTC 2457  
 Db 2281 TTCCCGGGGCTGACACCGGTGAATTC 2306

## RESULT 3

US-09-475-515-84  
 / Sequence 84, Application US/09475515A  
 / Patent No. 6602705  
 / GENERAL INFORMATION:  
 / APPLICANT: BARNETT, Susan  
 / APPLICANT: ZUR MEGEDE, Jan  
 / APPLICANT: SRIVASTAVA, Indresh  
 / APPLICANT: LIAN, Ying  
 / APPLICANT: HARTOG, Karin  
 / APPLICANT: LIU, Hong  
 / APPLICANT: GREER, Catherine  
 / APPLICANT: SERBY, Mark  
 / APPLICANT: WALKER, Christopher  
 / TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION  
 / FILE REFERENCE: 1621.002  
 / CURRENT APPLICATION NUMBER: US/09/475,515A  
 / NUMBER OF SEQ ID NOS: 90  
 / SOFTWARE: Patent In Ver. 2.0  
 / SEQ ID NO 84  
 / LENGTH: 2312  
 / TYPE: DNA  
 / ORGANISM: Artificial Sequence  
 / FEATURE:  
 / OTHER INFORMATION: Description of Artificial Sequence:  
 / OTHER INFORMATION: FS(-). Protomod. Rtopt(+)  
 US-09-475-515-84

Query Match 81.3%; Score 1998.4; DB 3; Length 2312;  
 Best Local Similarity 92.9%; Pred. No. 0;  
 Matches 2147; Conservative 0; Mismatches 141; Indels 24; Gaps 4;

QY 170 GCGGCAAGAGGGCCACGATGAAAGACTGTGACCGAGCGGCAACTTCTTCCGG 229  
 Db 1 GCGGCGCGCAAGAGCAACAAATGAAAGATTGTGACTGAGAGCAAGGCTAATTTCTTCCGG 60  
 QY 230 AGGACCTGGCTTTCCTCCCGAAGGCAAGCCGCGAGTTTCCCGAGCAGAAACCGCGCA 289  
 Db 61 AGGACCTGGCTTTCCTGACAGGCGAAGCCCGGAGTTTCAGCAGCAGAGACCCCGGCA 120  
 QY 290 ACAGCCCAACAGCCCGAGCTGACAGTGGCGCGCG-----ACAACCCCGCAGCGAG 343  
 Db 121 ACAGCCCAACCGCGCGAGCTGACAGTGTGGGCGCGAGAAACAACAGCTGAGAGGAG 180  
 QY 344 CGGCGCGAGAGGCGCAGGCGACCTTG-----AATTTCCCGCAATCATCTGTGGACG 397  
 Db 181 CGGCGCGCGAGCGCGCAGCGCAGCTTGAACTTCCCGAGATCACCTGTGGACG 240  
 QY 398 GCGCCCTGTGAGCATCAAGTGGCGCGCAGTCAAGAGAGCCCTGTGACACCGCG 457  
 Db 241 GCGCCCTGTGAGCATCAAGATGGCGCGCAGCTCAAGAGAGCGCTGTGACACCGCG 300  
 QY 458 CGGACGACACCGTGTGAGAGAGATGAGCTGCGCGCAAGTGAAGCCCAAGATGATG 517  
 Db 301 CGGACGACACCGTGTGAGAGAGATGAACTTGCGCGCAAGTGAAGCCCAAGATGATG 360  
 QY 518 GCGGATCGGCGGCTTCAATGAAGTGGCGCAAGTGAACCAATCTGATCGAGATCTGG 577  
 Db 361 GCGGATCGGCGGCTTCAATGAAGTGGCGCAAGTGAACCAATCTGATCGAGATCTGG 420  
 QY 578 GCAAGAGGCGCATTCGCGCACCGTGTGATGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 637  
 Db 421 GCGCAAGGCGCATTCGCGCACCGTGTGATGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 480  
 QY 638 ACATGCTGACCGAGCTGGCTGACACCTGAACTTCCCAATCAGCGCCCATGAGACCGTGG 697  
 Db 481 ACCTGCTGACCGAGATGGCTGACACCTGAACTTCCCAATCAGCGCCCATGAGACCGTGG 540  
 QY 698 CCGTGAAGCTGAAGCCCGGATGAGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 757  
 Db 541 CCGTGAAGCTGAAGCCCGGATGAGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 600  
 QY 758 AGAAGATCAAGGCGCTGACCGCATCTGAGAGAGATGAGAGAGAGGCGCAAGATCA 817  
 Db 601 AGAAGATCAAGGCGCTGAGAGATGAGAGAGAGAGAGAGAGAGATCA 660  
 QY 818 AGATCGGCGCGAGAACCCCTACCAACACCCCGTGTTCGCATCAAGAAAGAGACAGA 877  
 Db 661 AGATCGGCGCGAGAACCCCTACCAACACCCCGTGTTCGCATCAAGAAAGAGACAGA 720  
 QY 878 CCAAGTGGCGAGCTGTGAGACTTCGCGAGCTGAACAGCGCACCCGAACTTCTGG 937  
 Db 721 CCAAGTGGCGAGCTGTGAGACTTCGCGAGCTGAACAGCGCACCCGAACTTCTGG 780  
 QY 938 AGGTGAGCTTGGGCAATCCCGCAACCCCGCGCGCTGAAAGAAAGAGAGGTGACCGTGG 997  
 Db 781 AGGTGAGCTTGGGCAATCCCGCAACCCCGCGCGCTGAAAGAAAGAGAGGTGACCGTGG 840  
 QY 998 TGAAGTGGGCGAGCGCTACTTCAAGCGTCCCTGTGACAGAGACTTCCGCAAGTACAG 1057  
 Db 841 TGAAGTGGGCGAGCGCTACTTCAAGCGTCCCTGTGACAGAGACTTCCGCAAGTACAG 900  
 QY 1058 CTTTCAACATCCCGACATCAACAGAGACCCCGGCAATCCGCTACAGTACAGTGC 1117  
 Db 901 CTTTCAACATCCCGACATCAACAGAGACCCCGGCAATCCGCTACAGTACAGTGC 960  
 QY 1118 TGCCCGAGGGCTGAAAGGGGAGCGCCAGCATCTTCCAGAGCAGATGACCAAGATCTGG 1177  
 Db 961 TGCCCGAGGGCTGAAAGGGGAGCGCCAGCATCTTCCAGAGCAGATGACCAAGATCTGG 1020  
 QY 1178 AGCCCTTCCGCGCGCGCAACCCCGAGATCGTATCTACA-----GCGCCCGCTGTAG 1231

Db 1021 AGCCCTCCGCAAGCAAGGACCCGCAATCTGTATCTAACGATCATGAGAACCTTGTACG 1080  
 Qy 1232 TGGGACGCACTGGAGATGAGCAGACCGCGCAAGATGAGAGCTGCGCAAGACC 1291  
 Db 1081 TGGGACGCACTGGAGATGAGCAGACCGCGCAAGATGAGAGCTGCGCAAGACC 1140  
 Qy 1292 TGTGCGCTGGGCTTCAACACCCCGCAAGAGCAAGAGAGAGCCCTTCTGTC 1351  
 Db 1141 TGTGCGCTGGGCTTCAACACCCCGCAAGAGCAAGAGAGAGCCCTTCTGTC 1200  
 Qy 1352 CCAAT-----CGAGCTGACACCCGCAAGAGCAAGAGAGAGCCCTTCTGTC 1405  
 Db 1201 GATGGGCTTACGAGCTGACACCCGCAAGAGCAAGAGAGAGCCCTTCTGTC 1260  
 Qy 1406 AGAGAGCTGAGACGATGAGACGATCCGAGAGCTGAGGAGCAAGCTGAGGAGCC 1465  
 Db 1261 AGAGAGCTGAGACGATGAGACGATCCGAGAGCTGAGGAGCAAGCTGAGGAGCC 1320  
 Qy 1466 AGATCTTACCCCGCATCAAGGTGCGCCAGCTGTGCAAGCTGTGCGCGCGCAAGGCCC 1525  
 Db 1321 AGATCTTACCCCGCATCAAGGTGCGCCAGCTGTGCAAGCTGTGCGCGCGCAAGGCCC 1380  
 Qy 1526 TGAACGACATGTGCTCCCTTACCGAGAGGCGCGAGCTGTGCGCGCGCAAGGCCC 1585  
 Db 1381 TGAACGACATGTGCTCCCTTACCGAGAGGCGCGAGCTGTGCGCGCGCAAGGCCC 1440  
 Qy 1586 TCTTGGCGGAGCCCGTGCAGAGGCGGTATCTACGAGCCCGAGAGAGCACTGTGCGCGCA 1645  
 Db 1441 TCTTGGAGAGAGCCCGTGCAGAGGCGGTATCTACGAGCCCGAGAGAGCACTGTGCGCGCA 1500  
 Qy 1646 TCCAGAGCAGAGGCGCAAGCAGATGAGCTTACGAGCTTACGAGAGCCCTTCAAGAAC 1705  
 Db 1501 TCCAGAGCAGAGGCGCAAGCAGATGAGCTTACGAGCTTACGAGAGCCCTTCAAGAAC 1560  
 Qy 1706 TGAAGACGCGCAAGTACGCAAGATGCGCAACCGCGCAACCAAGCAGTGAAGCTGA 1765  
 Db 1561 TGAAGACGCGCAAGTACGCGCGCATGCGCGCGCGCGCAACCAAGCAGTGAAGCTGA 1620  
 Qy 1766 CCGAGGCGCGTGCAGAGATGCGCATGAGAGCACTGTGAGAGAGAGAGCCCGCAAGT 1825  
 Db 1621 CCGAGGCGCGTGCAGAGATGCGCATGAGAGCACTGTGAGAGAGAGAGCCCGCAAGT 1680  
 Qy 1826 TCCGCTGCGCATCAGAGAGAGCCTGTGAGAGCCTGTGAGAGCCTGTGAGAGCCTGTGAGAGC 1885  
 Db 1681 TCAAGCTGCGCATCAGAGAGAGCCTGTGAGAGCCTGTGAGAGCCTGTGAGAGCCTGTGAGAGC 1740  
 Qy 1886 CTTGATCTCCCGATGAGAGGTTGTGTAACACCCCGCGCTGTGTAAGCTGTGTAAGCTGTGTAAGC 1945  
 Db 1741 CTTGATCTCCCGATGAGAGGTTGTGTAACACCCCGCGCTGTGTAAGCTGTGTAAGCTGTGTAAGC 1800  
 Qy 1946 TGAAGAGAGAGCCATCATCGGCGCGAGACCTTCTTACGAGAGAGAGAGAGAGAGAGAGAGAGAG 2005  
 Db 1801 TGAAGAGAGAGCCATCATCGGCGCGAGACCTTCTTACGAGAGAGAGAGAGAGAGAGAGAGAGAG 1860  
 Qy 2006 AGACCAAGATGAG 2065  
 Db 1861 AGACCAAGATGAG 1920  
 Qy 2066 TGAACGAG 2125  
 Db 1921 TGAACGAG 1980  
 Qy 2126 GCGGAG 2185  
 Db 1981 GCGGAG 2040  
 Qy 2186 AGCCGAG 2245  
 Db 2041 AGCCGAG 2100  
 Qy 2246 AGAGAGTACCTGAGCTGTGAGTGTGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGATCG 2305

Db 2101 AGAGGTATACCTGAGCTGTGAGCGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2160  
 Qy 2306 AGAGGTATACCTGAGCTGTGAGCGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2265  
 Db 2161 AGAGGTATACCTGAGCTGTGAGCGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2220  
 Qy 2366 TGTGATCTACAGAGTACAG 2425  
 Db 2221 TGTGATCTACAGAGTACAG 2280  
 Qy 2426 AAAAGCTTCCCGGAGCTAGACCGGTGAATTC 2457  
 Db 2281 AAAAGCTTCCCGGAGCTAGACCGGTGAATTC 2312

RESULT 4  
 US-09-475-515-6  
 ; Sequence 6, Application US/09475515A  
 ; Patent No. 6602705  
 ; GENERAL INFORMATION:  
 ; APPLICANT: BARNETT, Susan  
 ; APPLICANT: ZUR MEGEDE, Jan  
 ; APPLICANT: SRIVASTAVA, Indresh  
 ; APPLICANT: LIAN, Ying  
 ; APPLICANT: HARTOG, Karin  
 ; APPLICANT: LIU, Hong  
 ; APPLICANT: GREER, Catherine  
 ; APPLICANT: SELBY, Mark  
 ; APPLICANT: WALKER, Christopher  
 ; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION  
 ; TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES  
 ; FILE REFERENCE: 1621.002  
 ; CURRENT APPLICATION NUMBER: US/09/475,515A  
 ; CURRENT FILING DATE: 1999-12-30  
 ; NUMBER OF SEQ. ID NOS: 90  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 6  
 ; LENGTH: 4319  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: synthetic  
 ; OTHER INFORMATION: HIV-Gag-polymerase  
 ; US-09-475-515-6

Query Match 78.0%; Score 1915.8; DB 3; Length 4319;  
 Best Local Similarity 89.4%; Pred. No. 4.2e-306;  
 Matches 2140; Conservative 0; Mismatches 227; Indels 28; Gaps 6;

Qy 14 TGGCGAGAGCCATGAGCGAGGCAACAGC---GCCAATCTCTGATGAGCGGAGCAACT 70  
 Db 1100 TGGCGAGAGCCATGAGCGAGGCAACAGC---GCCAATCTCTGATGAGCGGAGCAACT 1159  
 Qy 71 TCAAGGCGCCCAAGCGCATCATCAAGCTTCACTGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAG 130  
 Db 1160 TCCGCAACAGCGAGAGACCGTCAAGTCTTCACTGCGCAAGAGAGAGAGAGAGAGAGAGAGAG 1219  
 Qy 131 GCAATCGCGGCGCCCGCGCAAG 190  
 Db 1220 GCAATCGCGGCGCCCGCGCAAG 1279  
 Qy 191 TGAAGATGAGACCGAG 250  
 Db 1280 TGAAGATGAGACCGAG 1338  
 Qy 251 GCAAGCGCGGAGATTTCCCGAG 310  
 Db 1339 GCAAGCGCGGAGATTTCCCGAG 1398  
 Qy 311 TGAAGTGTGCGGCGG-----ACAACCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 364  
 Db 1399 TTAAGTGTGCGGCGG-----ACAACCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1458





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CURRENT APPLICATION NUMBER: US/09/393,795
CURRENT FILING DATE: 1999-09-10
PRIOR APPLICATION NUMBER: US 60/100,063
PRIOR FILING DATE: 1998-09-12
PRIOR APPLICATION NUMBER: US 60/100,022
PRIOR FILING DATE: 1998-09-11
NUMBER OF SEQ ID NOS: 12
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 12
LENGTH: 8908
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURES:
OTHER INFORMATION: Packaging construct pHDmHgm2 comprising a codon
OTHER INFORMATION: Optimized form of HIV gag pol region
US-09-393-795-12

Query Match      76.6%; Score 1882.2; DB 3; Length 8908;
Best Local Similarity 88.5%; Pred. No. 1.5e-300;
Matches 2119; Conservative 0; Mismatches 248; Indels 28; Gaps 6;

Db      14      TGGCGGAGGCGCATGAGCGGCGCACCA---GCGCCAACTCTGTATGCGGCGAGCAACT 70
      2405  TGGCGGAGGCGCATGAGCGGCGCACCA---GCGCCAACTCTGTATGCGGCGAGCAACT 2464
      71      TCAAGGCGCGCCAGCGCATCATCAAGTCTTCACTCGCGGAGGAGGCGCATCGCCC 130
      2465  TCGCAACACGACGCGAAGCGGTGAAGTCTTCACTCGCGGAGGAGGCGCATCGCCC 2524
      131  GCAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 190
      2525  AGAATCTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2584
      191  TGAAGACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 250
      2585  TGAAGACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2643
      251  GCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 310
      2644  GGAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2703
      311  TGCAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 364
      2704  TTCAAGGTTTGGGGAAGAGCAACAACCTCCCTCTCAAGAGGAGGAGCGCATGGAAGGAA 2763
      365  -----CCCTGAATCTCCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 418
      2764  CTGTATCTTTAGCTTCCCTCAAGATCACTTTTGGACGCGACCCCTGTCTCAATTAAGA 2823
      419  TGGCGGCGCGCATGAGCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 478
      2824  TCGGTGGCGCGACTGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2883
      479  AGATGAGCTCTCCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 538
      2884  AGATGAACCTCCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2943
      539  AGGTGCGCGCATGAGCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 598
      2944  AAGTCCGCGCATGAGCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 3003
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      3304  ACTTCCGCGAGCTGAACGAGCGCACCGGAGCTTCTGGAGGTGAGCTGGGAGATCCCC 3363
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      3364  ACCCGCGCGCGCTGAAGAGAGAGAGCGGTGAACGCTGTGAACGTGGGCGCGCTTACT 3423
      1019  TCAAGGTGCGCGCTGGAAGAGAGCTTCCGCAAGTACACCGGCTTCACTTCCAGCATCA 1078
      3424  TCTCCGCGCGCGCTGGAAGAGAGCTTCCGCAAGTACACCGGCTTCACTTCCAGCATCA 3483
      1079  ACAACGAGACCCCGCGCATCCGCTACCAATGACAAAGTGTGCGCGCGCGCGCGCGCGCG 1138
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      3544  CCGCGCGCATCTTCAAGAGCATGACCAAGATCTCTGAAGCCCTTCCGCGCGCGCAAC 3603
      1199  CCGAGATGCTGATCTACCA-----GCGCGCGCTGACGTGGGCGAGCGCTGAGATCG 1252
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      4084  AGTGAACCTTACCAAGATCTTCAAGAGGCGCGTCAAGAGCTGAGAGAGGAGTACGCGCC 4143
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      4144  GCATGAAGGCGCGCGCAACCAAGAGCTGAGAGGAGCTGAGAGGCGCGTGAAGAGATCG 4203
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      4204  CCATGAGAGAGCTGTGATCTTGGGCAAGAGCTTCCCAAGTTCAGCTGCGCATCAAGAG 4263
      1847  AGACCTGGAGAGCTGTGAGACCGACTGAGAGGCGCAAGCTGAGTCCCGAGTGGAGT 1906

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RESULT 6
US-09-475-515-81
; Sequence 81, Application US/09475515A
; Patent No. 6602705
; GENERAL INFORMATION:
; APPLICANT: BARNETT, Susan
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: SRIVASTAVA, Indresh
; APPLICANT: LIAN, Ying
; APPLICANT: HARTOG, Karin
; APPLICANT: LIU, Hong
; APPLICANT: GREER, Catherine
; APPLICANT: SELBY, Mark
; APPLICANT: WALKER, Christopher
; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
; TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
; FILE REFERENCE: 1621.002
; CURRENT APPLICATION NUMBER: US/09/475,515A
; NUMBER OF SEQ ID NOS: 90
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 81
; LENGTH: 2299
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: FS(+).prolnacc.Rtopc.YMMH
US-09-475-515-81

Query Match 76.2%; Score 1872.8; DB 3; Length 2299;
Best Local Similarity 89.3%; Pred. No. 4.6e-299;
Matches 2055; Conservative 0; Mismatches 232; Indels 13; Gaps 3;

Qy 170 GCGGCAAGAGGCGCACCGATGAAGATGCAACCGAGCGCGCAACTTCTCCGCG 229
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Qy 578 GCAAGAGGCGCATCGGACCGTGTGATCGGCGCGCAACCCCGGTGAACATCATCGCGCGCA 637
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1140 GCTGGGGCTTCAACACCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1199  
1356 ----CGAGCTGACCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1411  
1200 GCTACAGAGCTGACCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1259  
1412 GCTGACCGGTGAAGCAATTCAGAGAGCTGTGGGCAAGCTGAAGTGGGCGACGACAGATCT 1471  
1260 GCTGACCGGTGAAGCAATTCAGAGAGCTGTGGGCAAGCTGAAGTGGGCGACGACAGATCT 1319  
1472 ACCCGGCAATCAAGGTGCGCAGCTGTGCAAGCTGTGCGCGCGCGCAAGGCTTGAACG 1531  
1320 ACCCGGCAATCAAGGTGCGCAGCTGTGCAAGCTGTGCGCGCGCGCAAGGCTTGAACG 1379  
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1500 AGCAGGCGCGAGGCGAGTGAAGCTTACAGAGATTCACGAGAGAGAGAGAGAGAGAGAG 1559

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2072 AGACCAACCAACGAG 2131  
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2132 GCGAGTGAACATCTGTGACCGACAGCATAGCCCTGGGCAATCCAGGCGCGAGCCGCG 2191  
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2220 TCTACAGTACATGAG 2279  
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RESULT 8  
US-09-393-795-10  
; Sequence 10, Application US/09393795  
; Patent No. 6958226  
; GENERAL INFORMATION:  
; APPLICANT: Gray, John T.  
; APPLICANT: Mulligan, Richard C.  
; TITLE OF INVENTION: Packaging Cell Lines  
; FILE REFERENCE: CMCC693P2A  
; CURRENT APPLICATION NUMBER: US/09/393,795  
; CURRENT FILING DATE: 1999-09-10  
; PRIOR APPLICATION NUMBER: US 60/100,063  
; PRIOR FILING DATE: 1998-09-12  
; PRIOR APPLICATION NUMBER: US 60/100,022  
; PRIOR FILING DATE: 1998-09-11  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: PatSeq for Windows Version 3.0  
; SEQ ID NO 10  
; LENGTH: 3012  
; TYPE: DNA

ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Codon optimized form of HIV pol coding region  
 FEATURE:  
 NAME/KEY: CDS  
 LOCATION: (1)...(3012)  
 US-09-393-795-10

Query Match 71.7%; Score 1762; DB 3; Length 3012;  
 Best Local Similarity 89.3%; Pred. No. 7,5e-281;  
 Matches 1952; Conservative 0; Mismatches 210; Indels 24; Gaps 4;

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 QY 280 AACCGCGCCCAACAGCCCAACAGCCGAGCTGAGGTGGCGG-----CGACAAACC 333  
 DB 61 ACCAGAGCCCAACAGCCCAACAGAGAGCTTCAAGTTTGGGAGAGAGACAACTCC 120  
 QY 334 CGCAGCAGAGCGCGCGCGCAGGCGCAGGCA-----CCCTGAACCTTCCCGCAGATCAC 387  
 DB 121 CTCTCAGAGAGAGAGCGCGCAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 180  
 QY 388 CTGTGCGAGCGCGCGCTGTGAGCATCAAGGTGGCGCGCAGATCAAGAGGCCCTGTG 447  
 DB 181 CTTTGGCAGCGACCCCTGTCACAATAAGATCGGTGGCGCAGCTGAAGAGGCGCTCTG 240  
 QY 448 GACACCGCGCGCGCAGCAGCCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 507  
 DB 241 GACACCGCGCGCGCAGCAGCCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 300  
 QY 508 AAGATGATCGCGCGCATCGCGGCTTCAATCAAGGTGGCGCGCAGTACAGACAGATCTGATC 567  
 DB 301 AAGATGATCGCGCGCATCGCGGCTTCAATCAAGGTGGCGCGCAGTACAGACAGATCTGATC 360  
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 QY 1816 ACCCGCAAGTTCGCGCGCGCATCAGAGAGAGAGCTGGGAGAGCTGTGAGACCGATAC 1875  
 DB 1621 ACTCCCAAGTTCAGAGCTGCGCATCAGAGAGAGAGCTGGGAGAGCTGTGAGACCGATAC 1680  
 QY 1876 TGGCAGGCGACCTGAGATCCCGCAGTGGAGAGTTCGTGAACACCCCGCTGTGAAGCTG 1935  
 DB 1681 TGGCAGGCGACCTGAGATCCCGCAGTGGAGAGTTCGTGAACACCCCGCTGTGAAGCTG 1740  
 QY 1936 TGGTACAGCTGAGAGAGAGAGCCCATATGCGCGCGAGAGCTTCTTACGTGAGAGCGG 1995  
 DB 1741 TGGTACAGCTGAGAGAGAGAGCCCATATGCGCGCGAGAGCTTCTTACGTGAGAGCGG 1800  
 QY 1996 GCCAAGCGCGAGACCAAGATCGGAGAGCGCGCTTACGTGAACCGAGCGCGCGAGAG 2055  
 DB 1801 GCCAAGCGCGAGACCAAGATCGGAGAGCGCGCTTACGTGAACCGAGCGCGCGAGAG 1860  
 QY 2056 ATCGTGAAGCTGAGCGAGAGACCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2115  
 DB 1861 ATCGTGAAGCTGAGCGAGAGACCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1920  
 QY 2116 CTGAG 2175  
 DB 1921 CTGAG 1980  
 QY 2176 ATCAGAGCGCGAGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2235

Db 1981 ATCCAGGCCCGACCCGACCAAGTCCGAGTGTGTGTCCAGATCATCCAGAGCTGG 2040  
Qy 2235 ATCAAGAGAGAAAGTTAACTGAGCTGGTGGCCCGCCACAAAGGCGCATGGCGGCAAC 2295  
Db 2041 ATCAAGAAAGAAAGTTAACTGAGCTGGTGGCCCGCCACAAAGGCGCATGGCGGCAAC 2100  
Qy 2296 GAGCAGATCGAAGCTGTGTAGCAAGGCGCATCCGCAAGTGTCTTCTGTGACGGCATC 2355  
Db 2101 GAGCAGGTGACAAAGTGTGTGTCCGGCGCATCCGCAAGTGTGTCTTCTGTGACGGCATC 2160  
Qy 2356 GATGGCGGCGATGTGATCTAACAGTA 2381  
Db 2161 GACAAAGGCCAGAGAGACGAGAA 2186  
  
RESULT 9  
US-09-552-950-2  
; Sequence 2, Application US/09552950  
; Patent No. 6541248  
; GENERAL INFORMATION:  
; APPLICANT: Oxford Biomedica (UK) Limited  
; TITLE OF INVENTION: Anti-Viral Vectors  
; FILE REFERENCE: 674524-2004  
; CURRENT APPLICATION NUMBER: US/09/552,950  
; CURRENT FILING DATE: 2000-04-20  
; NUMBER OF SEQ ID NOS: 22  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 2  
; LENGTH: 4307  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: gaspol - synsp - codon  
US-09-552-950-2  
  
Query Match 66.2%; Score 1626.6; DB 3; Length 4307;  
Best Local Similarity 82.2%; Pred. No. 1.4e-258;  
Matches 1951; Conservative 0; Mismatches 394; Indels 28; Gaps 6;  
  
Qy 12 CATGGCGAGGCCATGATGAGCCAGG--CCACAGCGCCCAACATCTGATGACGCGACGAA 68  
Db 1086 CTGGCTGAGGCCATGAGCGAGTGACCAACTCCGCTACATCATGATGACGCGCGCAA 1145  
Qy 69 CTTCAAGGCGCCCAAGCGATCTCAAGTGTCTTCACTGGCGCAAGAGGCGCAACTCCG 128  
Db 1146 CTTTCGAAACCAACGCAAGATCTCAAGTGTCTTCACTGGCGCAAGAGGCGCAACACG 1205  
Qy 129 CCGCACTGCGCGCGCCCGCCGCAAGAGGCTCTGGAAGTGGCGCAAGAGGCGCGCA 188  
Db 1206 CCGCACTGCGCGCGCCCGCCGCAAGAGGCTCTGGAAGTGGCGCAAGAGGCGCGCA 1265  
Qy 189 GATGAAGACTGACCGAGCGCCAGGCCAACTTCTTCCGAGAGACTGTGCTTCCCA 248  
Db 1266 GATGAAGACTGACCGAGAGACAGGCTAA-TTTTAAAGGAAGATCTGGCTTCTTACA 1324  
Qy 249 GGGCAAGCGCCCGAGTCTCCCGAGCGAGCAACCGCGCCCAAGAGCGCGCGCA 308  
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Qy 309 GCTGCAAGT-----GCGCGGCGCAACCCCGCAGAGAGCGCGCGCGCGAGCGCGCA 362  
Db 1385 GCTTCAAGTGTGGGGTGTGGCAACACTCCCTCCGAGCGAGAGCGCGCGCGCGCGAGG 1444  
Qy 363 CA-----CCCTGAATCTCCCGCAATCAACCTGTGGCAAGCGCCCTGTGTGATCA 416  
Db 1445 CAGGATGTCTTCAACTTCCCTCAGGTCAAGCTTTGGAGCGAGCCCTGTGTGATCA 1504  
Qy 417 GGTGGCGCGCGCAATCAAGAGGCTCTGTGTGACACCGCGCGCGAGCAACCTGTGTGA 476  
Db 1505 GATCGGGGGCGAGCTCAAGAGGCTCTGTGTGACACCGAGAGCAAGCAACCTGTGTGA 1564  
Qy 477 GAGATGAGCGCTCGCGGCGCAAGTGAAGCCCAAGATGATCGGCGGCGATCGCGGCTTCA 536

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Qy 537 CAAGGTGGCGCGATGACCGACGATCTGTGATGAGATCTGGCGCAAGAGCGCATGGCGAC 596  
Db 1625 CAAGGTGGCGCGATGACCGACGATCTGTGATGAGATCTGGCGCAAGAGCGCATGGCGAC 1684  
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Db 1685 CGTGTGTGTGGCG 1744  
Qy 657 CTGCACTGTAACTTCCCATGAGCCCATGAGACCGTGGCGCGCGCGCGCGCGCGCG 716  
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Qy 717 CATGAGCG 776  
Db 1805 GATGAGCG 1864  
Qy 777 CGCATCTGCGAGAGATGAGAGAGAGAGAGAGATCACCAAGATCGCGCGCGAGAACCC 836  
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Qy 837 CTACAAACACCGCGTGTGTGCGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 896  
Db 1925 GTACAAACAGCGCGGTGTGTGCGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1984  
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Db 1985 GGAATTCG 2044  
Qy 957 CCAACCG 1016  
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Qy 1017 CTTCAAGCTGTCCCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1076  
Db 2105 CTTCTTCGTTCCCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2164  
Qy 1077 CAACAAAG 1136  
Db 2165 CAACAAAG 2224  
Qy 1137 GAGCCCGACATCTTTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1196  
Db 2225 CTTCTCCGAGATCTTTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2284  
Qy 1197 CCGCGAGATGTGATCTACA-----GGCGCGCGCGCGCGCGCGCGCGCGCGCG 1250  
Db 2285 CCGCGAGATGTGATCTATCAAGTATGATGATGATGATGATGATGATGATGATGAT 2344  
Qy 1251 CCGCGAG 1310  
Db 2345 AGGCGAG 2404  
Qy 1311 CACCCCGCAAGAAAGCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1364  
Db 2405 CACACCGCAAGAAAGCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2464  
Qy 1365 CCGCGAG 1424  
Db 2465 CCGCGAG 2524  
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Qy 1485 GGTGGCG 1544  
Db 2585 GGTGGCG 2644  
Qy 1545 GACCGAGAGAGCGCGAGCTGGCGCGAGAGCGCGAGAGATCTTGGCGAGAGCGCGTGA 1604

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Db      2645 AACCGAGAGGCGGAGCTGAACTGGCAAGAAAACGAGAGATCTTAAAGAGCCCGTGCA 2704
      1605 CGCGCTGTACTACGACCCCGACAGAGACTGTGTGCGGAGATCCAGAGAGAGGCGCA 1664
      2705 CGCGCTGTACTACGACCCCGACAGAGACTGTGTGCGGAGATCCAGAGAGAGGCGCA 2764
      1665 CCAAGTGAACCTTACAGATCTTACAGAGAGCCCTTCAAGAACTTGAAGACCGGCAAGTACG 1724
      2765 CCAAGTGAACCTTACAGATCTTACAGAGAGCCCTTCAAGAACTTGAAGACCGGCAAGTACG 2824
      1725 CAAGATGCGACCGGCGCAACCAAGCGAGAGAGCTGACCGAGGCGGTGCAAGAT 1784
      2825 CCGAGTGAAGGAGTGGCCCACTAAAGAGCTGAAGAGAGCTGAAGGCGGTGCAAGAT 2884
      1785 CGCATGAGAGAGCTGTGATCTGGGCGCAAGACCCCAAGTTCGCGCTGCGCAATCCAGAA 1844
      2885 CACCAACGAAAGACTGTGATCTGGGAGAAAGACTCTTAAGTTCAGAGTGGCCCAATCCAGAA 2944
      1845 GAGAGACTGGAGAGACTGTGAGAGCACTAATGAGAGGCACTGTGATTCCTCGAGTGGGA 1904
      2945 GGAAGCTGGAGAACTGTGAGAGCAAGATATGGCAAGGCACTGTGATTCCTCGAGTGGGA 3004
      1905 GTTGTGAACAACCCCGCTGTGTGAAGCTGTGTGATACAGCTGAGAGAGAGAGCCATCAT 1964
      3005 GTTGTGAACAACCCCGCTGTGTGAAGCTGTGTGATACAGCTGAGAGAGAGAGCCATCAT 3064
      1965 CGGCGCGGAGAGCTTCTACAGTGAAGCGGCGCGCAACCGCGAGACCAAGATCCGCAAGGC 2024
      3065 GGGGCGGAAACCTTCTACAGTGAAGCGGCGCGCTAAAGAGAGCTAAAGCTGGGCAAGC 3124
      2025 CGGCTACGTGACCGAGCGGCGCGCAAGAGATGTGAGCCTGACCGAGACCAACCA 2084
      3125 CGAGTACGTACCTAAACCGGCGCGCAAGAGATGTGACCTGACCTGACCAACCA 3184
      2085 GAAAGACGAGCTGAGAGGCTCAAGCTGTGCGCTGTGAGAGAGAGCGGCAAGAGTGAACAT 2144
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      2145 CGTGAACGAGAGAGTACGCGCTGTGAGAGCTCAAGGCGCGGCAAGAGAGCGAGAG 2204
      3245 CGTGAACGAGTCTTCAAGTATGCGCTGTGAGAGCTCAAGGCGCGGCAAGAGAGTGAAGTC 3304
      2205 CGAGCTGTGTAACGAGATCATCGAGAGCTGATCAAGAGAGAGAGTGAAGTGAAGTGAAGTGA 2264
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RESULT 10  
US-09-936-572-2

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; Sequence 2, Application US/09936572
; Patent No. 6783981
; GENERAL INFORMATION:
; APPLICANT: UDEN, MARK
; APPLICANT: MITROPHANOUS, KYRIACOS
; TITLE OF INVENTION: ANTI-VIRAL VECTORS
; FILE REFERENCE: 078883/0137
; CURRENT APPLICATION NUMBER: US/09/936,572
; PRIOR FILING DATE: 2001-12-11
; PRIOR APPLICATION NUMBER: PCT/GB00/01002
; PRIOR FILING DATE: 2000-03-17
; PRIOR APPLICATION NUMBER: GB 9906177.2
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 73
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2

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; LENGTH: 4307
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: gaspol-synp-codon optimised gaspol sequence
US-09-936-572-2

Query Match      65.4%; Score 1607.4; DB 3; Length 4307;
Best Local Similarity 81.7%; Pred. No. 2e-255;
Matches 1939; Conservative 0; Mismatches 406; Indels 28; Gaps 6;

      12 CATGCGGAGGCGCATGAGCGCAGG---CAACAGCGCGCAACATCTGATGAGCGCGCA 68
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      69 CTTCAAGGCGCCCAAGCGCATCATCAATGCTTCAACTGCGGCAAGAGGCGCAATGCG 128
      1146 CTTTGGAAACCAAGCAAGATGCTCAAGTCTTCAACTGCGCAAGAGGCGCAACAGC 1205
      129 CGGCAACTGCGCGCGCGCGCGCAAGAGGCTGTGAAAGTGGCGCAAGAGGCGCA 188
      1206 CGGCAACTGCGCGCGCGCGCGCAAGAGGCTGTGAAAGTGGCGCAAGAGGCGCA 1265
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      249 GGGCAAGGCGCGCGAGTTCCTCCAGCGAGCAACCGCGCAACAGCCCGCAACGCGCGA 308
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      309 GTTGCAGTGTGCGG---CGAACACCCCGCGAGAGGCGCGCGCGCGCGCGCGCGCG 362
      1385 GCTTCAAGTGTGCGGAGTGAAGCAACACTCCCTCGAAGAGAGAGCGAGTGAACAGG 1444
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      1505 GATGAGGCGCGAGTCAAGAGGCGCTGTGAGCAACCGCGCGCGAGCAACCGTGTGGA 1564
      477 GAGATGAGGCTGTGCGCGCGCAAGTGAAGCCCAAGATATGCGCGCGCATTCGCGCTTCA 536
      1565 GAGATGATGCTGTGCGCGCGCGCGCGAGAGATGATCGCGGGAATTCGCGGTTTCA 1624
      537 CAAGTGTGCGCGCGCAAGTCAAGATCTTGAATGAGATGCGCGCGCAAGAGGCGCATCGGAC 596
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      597 CGTGTGATGCGCGCGCGCGCGCGCAAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAG 656
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      657 CTGCAACCTGAATCTTCCCATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 716
      1745 TTGCAAGCTGAATCTTCCCATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1804
      717 CATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 776
      1805 GATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1864
      777 CGCATCTGCGAGAGATGAGAGAGAGGCGCAAGTCAACCAAGTTCGCGCGCGCGCGCGCGCG 836
      1865 GGAATTTGCAACAGATGAGAGAGAGGAAATCTCAAGATTTGCGCGCGCGCGCGCGCGCG 1924
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      1925 GTACAAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1984
      897 GGACTTCGCGAGCTGAACAGAGCGCAACCGAGATTTCTGAGAGGTTGAGTGTGCGCATCC 956

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Db      1985 GGAATTCCTCCGAGCTGAAACAAGGCGACGAAAGCTTCTGGAGGTTCACTGGGCAATCC 2044
Qy      957  CCAATCCGCGCGCTGAGAAAGAAAGAGAGCTGACCGTGTGAGAGTGGGCGAGCGCTTA 1016
Db      2045 GCAATCCGCGAGGCTGAAAGAAAGAAATCCGTGACCGTATCTGAGTGTGGTATGCCCTTA 2104
Qy      1017 CTTCAGCGGTGCCCTGGAAGAGGACTTCCGCAAGTACACCGGCTTACCATCCCGAGCAT 1076
Db      2105 CTTCCTCCGTTCCCTGAGAGAGACTTCAGAGAGTACACTGCTTCAAACTCCCTTCAT 2164
Qy      1077 CAACAAGAGACCCCGGAGATCCGCTACCAAGTACAAAGTGTCTCCAGGCTGAAAGG 1136
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Qy      1137 CAGCCCGAGCATTTTCAAGAGCAGTACCAAGATCTCGAGAGCTTCCGCGCGCGCA 1196
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Qy      1197 CCGGAGATCGTATCTACCA-----GGCCCCCTGTAGTGGGCGAGGACCTGGAGAT 1250
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Qy      1251 CCGGAGAGACCGGCGCAAGATCGAGAGCTGCGCAAGACATCTGTGCGTGGGCTTCA 1310
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Qy      1365 CCGGAGAGTGGAGCTGTGAGCGGCAATGAGCTGCGGAGAGAGAGAGTGGAGCTGAA 1424
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Qy      1485 GGTGCGCAGCTGTGCAAGCTGTGCGCGGCGCAAGGCTGAGCGAGCATCTGCTCCCT 1544
Db      2585 GGTGAGGAGCTGTGCAAACTCTCCGCGGAGCAAGAGCATCTACAGAGGTGATCCCTCT 2644
Qy      1545 GACCGAGAGGCGGAGCTGAGCTGAGCGGAGAGCGGAGATCTGCGGAGGCGGCTGCA 1604
Db      2645 AACCGAGAGGCGGAGCTGAGCTGAGAGAGAGAGAGAGATCTAAAGAGGCGGCTGCA 2704
Qy      1605 CCGCTGTACTACGACCCCGAGAGAGCTGTGGCGGAGATCCAGAGAGAGGCGGCA 1664
Db      2705 CCGCTGTACTACGACCCCGAGAGAGCTGTGGCGGAGATCCAGAGAGAGGCGGCA 2764
Qy      1665 CCAAGTGAAGCTTACAGATCTTACAGAGAGGCTTCAAGAGCTGAAAGCGGCAAGTACG 1724
Db      2765 CCAAGTGAAGCTTACAGATCTTACAGAGAGGCTTCAAGAGCTGAAAGCGGCAAGTACG 2824
Qy      1725 CAAGATGCGAGCGGCGCAAGAGAGAGAGAGAGCTGAGCGGAGGCGGTGCAAGAT 1784
Db      2825 CCGAGTGAAGGCGGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAT 2884
Qy      1785 CCGCTGAGAGAGAGCTGTGATCTGTGGGCAAGAGAGAGAGAGAGAGAGAGAGAG 1844
Db      2885 CACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2944
Qy      1845 GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1904
Db      2945 GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3004
Qy      1905 GTTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1964
Db      3005 GTTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3064
Qy      1965 CCGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2024

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Db      3065 GGGCGCGGAAACTTCTACGTGATGGGCGGCTTAACAGAGAGAGACTAAGCTGGCAAGG 3124
Qy      2025 CGGCTAAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2084
Db      3125 CGGATACGTACTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3184
Qy      2085 GAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2144
Db      3185 GAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3244
Qy      2145 CGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2204
Db      3245 CGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2264
Qy      2205 CGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2264
Db      3305 CGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3364
Qy      2265 GGTGCGCGGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2324
Db      3365 GGTACCGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3424
Qy      2325 CATCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2357
Db      3425 CATCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3457

RESULT 11
US-09-936-572-14
; Sequence 14, Application US/09936572
; Patent No. 6783981
; GENERAL INFORMATION:
; APPLICANT: UDEN, MARK
; APPLICANT: MITROPHANOUS, KYRIACOS
; TITLE OF INVENTION: ANTI-VIRAL VECTORS
; FILE REFERENCE: 078883/0137
; CURRENT APPLICATION NUMBER: US/09/936,572
; PRIOR FILING DATE: 2001-12-11
; PRIOR APPLICATION NUMBER: PCT/GB00/01002
; PRIOR FILING DATE: 2000-03-17
; PRIOR APPLICATION NUMBER: GB 9906177.2
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 73
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 14
; LENGTH: 4327
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: pSYNGP4-codon
; OTHER INFORMATION: Optimised HIV-1 gagpol with 20bp of the leader
; OTHER INFORMATION: Sequence of HIV-1
US-09-936-572-14

Query Match      65.1%; Score 1599.4; DB 3; Length 4327;
Best Local Similarity 81.5%; Pred. No. 4e-254;
Matches 1934; Conservative 0; Mismatches 411; Indels 28; Gaps 6;

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Qy      69  CTTCAAGAGGCGCCCAAGCGGATCATCAAGTGTCTTCAATGCGGCAAGAGAGGCGACATCG 128
Db      1166 CTTTGGAAACCAACGCAAGATGTCAAGTGTCTTCAACTGTGGCAAGAGAGGCAACAGC 1225
Qy      129  CCGCAACTGCGGCGCGCGCGCGCGCAAGAGAGGCTGTGAAAGTGGCGCAAGAGGCGCA 188
Db      1226 CCGCAACTGCAAGGCGCGCGCGCGCGCAAGAGAGGCTGTGAAATGTGAAAGAGAGACCA 1285
Qy      189  GATGAAGAGCTGACCGAGCGCGCGCAACTTCTTCCGAGAGAGCTTGCCCTTCCCGCA 248
Db      1286 AATGAAGATGTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1344

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QY 249 GGGCAAGCCCGGAGTTTCCCGAGCAAGAACCGCGCCAAAGCCCAACGAGCCGCA 308  
DB 1345 AAGGAAGGCGAGGAAATTTTCTTCAAGAGGACCAAGGCCAAACAGCCCAACGAAGAG 1404  
QY 309 GCTGCAAGTGCAGG-----CGAACACCCCGCAGAGGCGGCGCCGAGGCCAAGG 362  
DB 1405 GCTTCAAGTTTGGGGAAGAACAACTCCCTCTCAAGAGCAGAGCCGATAGAACAGG 1464  
QY 363 CA-----CCCTGAACCTTCCCGAGATCACTGCTGGCAGCGCCCTGGTGAACATCA 416  
DB 1465 AACTGATCTTTAGCTTCCCTCAGATCACTTTGGCAGCAGCCCTGTCACATTA 1524  
QY 417 GGTGGGCGGCAGATCAAGAGGCGCTGCAACCGCGCGCAGACACCGTGTGGA 476  
DB 1525 GATAGGGGGGCACTCAAGAGGCTCTCTGGAACCGAGCAGACGACCGTGTGGA 1584  
QY 477 GGAATGAGCCTTGGCCCGCAAGTGAAGCCCAAGATGATCGGCGGCATCGGCGCTTCA 536  
DB 1585 GGAATGTCTGTCAGGCGCTGGAAGCCGAAGATGATCGGGGGAATCGCGGTTTCA 1644  
QY 537 CAAGTGGCGCAGATGACAGATCTGATCGATGCGGCAAGAGCCATCGGAC 596  
DB 1645 CAAGTGGCGCAGATGACAGATCTGATGAAATCTGCGCCACAGAGCTATCGGTAC 1704  
QY 597 CGTGTGATCGGCGCCCAACCCCGTGAACATCATCGCGCAACATGCTGAACCGACTGG 656  
DB 1705 CGTGTGTGGGCGCCCAACCCCGTGAACATCATCGAGCGAACCTGTTGAACGAGATCG 1764  
QY 657 CTGCACTTGAACCTTCCCATCAGCCCATCGAGACCGTGCCTGTAAGCTGAAGCCCG 716  
DB 1765 TTGCACTGTAACTTCCCATGAGCCCTATCGAGACCGTACCGGTGAAGCTGAAGCCCG 1824  
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QY 777 CGGCATCTGCGAGAGATGAGAGAGGCGCAGAGTCAACAGATCGGCGCCCGAGAAC 836  
DB 1885 GGAATTTGCAAGAGATGAGAAAGAGAAAGGGAATCTCCAAAGTTGGGCGTGAAGACC 1944  
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QY 1017 CTTGAGCGTGGCGCTGAGCAGAGACTTCCGCAAGTACACCGCTTCAACATGCCAGCAT 1076  
DB 2125 CTTCTCCGTTCCCTGGAAGAGACTTCAAGAGAGTCACTGCTTCAACATGCCCTGCAT 2184  
QY 1077 CAACAGAGAGACCCCGGCACTCCGTAACAGTACACAGTGTGCCCGGCGGCTGAAGG 1136  
DB 2185 CAACAGAGAGACCCCGGGAATTCAGATACACAGTGTGCCCGGCGGCTGAAGG 2244  
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QY 1197 CCGCGAGATCTGTATCTTCA-----GCGCCCTGTGATCTGGCGACGACCTGAGAT 1250  
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DB 2365 AAGGAGACCGCACCAAGATGAGAGCTGGCGACGACCTGTTGAGGTGGGACTGAC 2424

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DB 2605 GGTGAGGAGCTGTGCAAACTCTCCGCGAACCAAGGACCTACAGAGGTATCCCTC 2664  
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Qy      1785 CGGCGTGAAGAGATCTGTGTATCTGTGGGCGAAGACCCCAAGTTCGCGTGGCCATCCAGA 1844
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RESULT 14
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; Sequence 5, Application US/09552950
; Patent No. 6541248
; GENERAL INFORMATION:
; APPLICANT: Oxford Biomedica (UK) Limited
; TITLE OF INVENTION: Anti-Viral Vectors
; FILE REFERENCE: 674524-2004
; CURRENT APPLICATION NUMBER: US/09/552,950
; CURRENT FILING DATE: 2000-04-20
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 5
; LENGTH: 9772
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: Description of Artificial Sequence:DSNBP
US-09-552-950-5

Query Match      65.1%; Score 1599.4; DB 3; Length 9772;
Beet Local Similarity 81.5%; Pred. NO. 4.4e-254;
Matches 1934; Conservative 0; Mismatches 411; Indels 28; Gaps 6;

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RESULT 15  
US-09-872-733A-6  
Sequence 6, Application US/09872733A  
Patent No. 6656706  
GENERAL INFORMATION:  
APPLICANT: The Government of the United States of America, as  
APPLICANT: MOLECULAR CLONES WITH MUTATED HIV GAG/POL, SIV GAG AND  
TITLE OF INVENTION: SIV ENV GENES  
FILE REFERENCE: 2026-4287US1 HIV GAG/POL, SIV GAG & ENV  
CURRENT APPLICATION NUMBER: US/09/872,733A  
PRIOR FILING DATE: 2001-06-01  
PRIOR APPLICATION NUMBER: PCT/US00/34985  
PRIOR FILING DATE: 2000-12-22  
PRIOR APPLICATION NUMBER: 60/1173,036  
PRIOR FILING DATE: 1999-12-23  
NUMBER OF SEQ ID NOS: 19





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QY 2027 GCTACGTGACCGACCGGGGCGGCGAAGATCGTGAAGCTTGACCGAGACCAACCAACAGA 2086
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GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

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Title: US-09-610-313b-32

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Gapop 10.0 , Gapext 1.0

Searched: 9793542 seqs, 4134689005 residues

Total number of hits satisfying chosen parameters: 19587084

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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2	2443.4	99.4	2445	6	US-10-190-435-43
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5	2436.2	99.2	2463	6	US-09-899-575-31
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8	2434.8	99.1	5184	6	US-10-190-435-58
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24	2295.8	93.4	3624	6	US-10-190-435-47	Sequence 47, Appl
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30	2135	86.9	3564	6	US-10-241-009-13	Sequence 13, Appl
31	2135	86.9	3564	6	US-10-241-009-13	Sequence 14, Appl
32	2135	86.9	3564	6	US-10-190-434B-13	Sequence 13, Appl
33	2135	86.9	3564	6	US-10-190-434B-14	Sequence 14, Appl
34	2135	86.9	3564	6	US-10-976-619-13	Sequence 13, Appl
35	2135	86.9	3564	6	US-10-976-619-14	Sequence 14, Appl
36	2134.4	86.9	4716	6	US-10-190-435-17	Sequence 17, Appl
37	2134.4	86.9	4716	6	US-10-190-305A-13	Sequence 13, Appl
38	2130.6	86.7	3999	6	US-10-241-009-9	Sequence 9, Appl
39	2130.6	86.7	3999	6	US-10-190-434B-9	Sequence 9, Appl
40	2130.6	86.7	3999	6	US-10-976-619-9	Sequence 9, Appl
41	2129	86.7	3999	6	US-10-241-009-10	Sequence 10, Appl
42	2129	86.7	3999	6	US-10-241-009-11	Sequence 11, Appl
43	2129	86.7	3999	6	US-10-190-434B-10	Sequence 10, Appl
44	2129	86.7	3999	6	US-10-190-434B-11	Sequence 11, Appl
45	2129	86.7	3999	6	US-10-976-619-10	Sequence 10, Appl

#### ALIGNMENTS

RESULT 1  
US-09-899-575-32  
; Sequence 32, Application US/09899575  
; Publication No. US20030223961A1  
; GENERAL INFORMATION:  
; APPLICANT: Zur Megele, Jan  
; APPLICANT: Barnet, Susan W.  
; APPLICANT: Egnelbrecht, Susan  
; APPLICANT: van Rensburg, Estrella Janse  
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
; FILE REFERENCE: PP01631.102  
; CURRENT APPLICATION NUMBER: US/09/899,575  
; CURRENT FILING DATE: 2001-07-05  
; PRIOR APPLICATION NUMBER: 09/475,704  
; PRIOR FILING DATE: 1999-12-30  
; NUMBER OF SEQ ID NOS: 135  
; SOFTWARE: Patent Ver. 2.0  
; SEQ ID NO 32  
; LENGTH: 2457  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: PR975YMM

Query Match  
Best Local Similarity 100.0%; Score 2457; DB 3; Length 2457;  
Matches 2457; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	GTGACGCCACCATGCGCGAGCGCATGAGCCAGGCCACCGGCCCAATCTTATGCG	60
DB	1	GTGACGCCACCATGCGCGAGCGCATGAGCCAGGCCACCGGCCCAATCTTATGCG	60
QY	61	CGCAGCACTTCAAGGGGCCCCAGCGCATATCAAGGCTTCACTGCGGCAAGAGGC	120
DB	61	CGCAGCACTTCAAGGGGCCCCAGCGCATATCAAGGCTTCACTGCGGCAAGAGGC	120
QY	121	CACATGCGCGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG	180
DB	121	CACATGCGCGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG	180
QY	181	GGCCACCAAGTGAAGAGTGCAGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCG	240
DB	181	GGCCACCAAGTGAAGAGTGCAGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCG	240

241 TTCCCAAGGCAAGGCGCCGAGTTCCCAAGCAGACAGAACCGCCCAAGCCACC 300  
241 TTCCCAAGGCAAGGCGCCGAGTTCCCAAGCAGACAGAACCGCCCAAGCCACC 300  
301 AGCCGAGCTGAGGTGCGCGGCGAACCCTCCGACGAGAGCCCGCCCGAGCCGAG 360  
301 AGCCGAGCTGAGGTGCGCGGCGAACCCTCCGACGAGAGCCCGCCCGAGCCGAG 360  
361 GGCACCTGAACTTCCCGCAGATCACTGTGGCAGCGCCCTGTGTGACATCAAGG 420  
361 GGCACCTGAACTTCCCGCAGATCACTGTGGCAGCGCCCTGTGTGACATCAAGG 420  
421 GCGCGCAGATCAAGAGGCGCTGTGACACCGCGCGCGACACACCGTGTGAGAG 480  
421 GCGCGCAGATCAAGAGGCGCTGTGACACCGCGCGCGACACACCGTGTGAGAG 480  
481 ATGAGCTGCGCGGCAAGTGAAGCCCAAGATGATGCGCGCATCGCGCTTCAATCA 540  
481 ATGAGCTGCGCGGCAAGTGAAGCCCAAGATGATGCGCGCATCGCGCTTCAATCA 540  
541 GTGCGCAGTACGACCAAGATCCGTGATCGATCTGTGGGCAAGAGGCGCATCGCG 600  
541 GTGCGCAGTACGACCAAGATCCGTGATCGATCTGTGGGCAAGAGGCGCATCGCG 600  
601 CTGATCGGCGCAACCCCGGTGAACATCATCGCGCGCAATGCTGACCCAGCTGCG 660  
601 CTGATCGGCGCAACCCCGGTGAACATCATCGCGCGCAATGCTGACCCAGCTGCG 660  
661 ACCCTGAATTTCCCATCAAGCCCATCGACCGTGTGCGGAGCTGAAGCCCGGATG 720  
661 ACCCTGAATTTCCCATCAAGCCCATCGACCGTGTGCGGAGCTGAAGCCCGGATG 720  
721 GACGCGCCCAAGGTGAAGAGTGGCCCTGACCGGAGAGAAATCAAGGCGCTGAAC 780  
721 GACGCGCCCAAGGTGAAGAGTGGCCCTGACCGGAGAGAAATCAAGGCGCTGAAC 780  
781 ATCTGGAAGAGATGGAAGAGAGGCAAGATCAACAGATCGGCCCGAGAACCCCTAC 840  
781 ATCTGGAAGAGATGGAAGAGAGGCAAGATCAACAGATCGGCCCGAGAACCCCTAC 840  
841 AACACCCCGGTGTTCCCATCAAGAGAGAGACACCAAGTGGCGCAAGCTGTGAG 900  
841 AACACCCCGGTGTTCCCATCAAGAGAGAGACACCAAGTGGCGCAAGCTGTGAG 900  
901 TTCGCGAGCTGAACAAGGCGACCCGAGCTTCTGGAGGTGACGTGGGACATCCCCAC 960  
901 TTCGCGAGCTGAACAAGGCGACCCGAGCTTCTGGAGGTGACGTGGGACATCCCCAC 960  
961 CCGCGCGCTGAAGAGAGAGAGAGCTGACCGTGTGACCGTGGCGACCGCTTCTTC 1020  
961 CCGCGCGCTGAAGAGAGAGAGAGCTGACCGTGTGACCGTGGCGACCGCTTCTTC 1020  
1021 AGCGTCCCTGTGACAGAGATTTCCGAAATACCGGCTTCACTCCCGACATCAAC 1080  
1021 AGCGTCCCTGTGACAGAGATTTCCGAAATACCGGCTTCACTCCCGACATCAAC 1080  
1081 AACGAAACCCCGGCAATCCGCTACAGTCAAGTCTGCTCCCAAGGCTGAAAGGCAAC 1140  
1081 AACGAAACCCCGGCAATCCGCTACAGTCAAGTCTGCTCCCAAGGCTGAAAGGCAAC 1140  
1141 CCGAGATCTTCCAGAGCAGATGACCAAGATCTTGAAGCCCTTCCGCGCGCAACCC 1200  
1141 CCGAGATCTTCCAGAGCAGATGACCAAGATCTTGAAGCCCTTCCGCGCGCAACCC 1200  
1201 GAGATGTGATCTACCAAGGCGCCCTGTAGTGGGACGACCTGAGATCGGCGAGCAC 1260  
1201 GAGATGTGATCTACCAAGGCGCCCTGTAGTGGGACGACCTGAGATCGGCGAGCAC 1260  
1261 CCGGCAAGATGAGAGAGCTGGGCAAGACCTGCTGCGGTGCTTCAACCACTCCGAC 1320  
1261 CCGGCAAGATGAGAGAGCTGGGCAAGACCTGCTGCGGTGCTTCAACCACTCCGAC 1320  
1321 AAGAAACACAGAAAGAGCCCTTCTGTCCATGAGCTGACCCCGCAAGTGGAC 1380

1321 AAGAAACACAGAAAGAGCCCTTCTGTCCATGAGCTGACCCCGCAAGTGGAC 1380  
1381 GTGCAAGCCATGAGACTGCGCGAGAGAGACTGGAACGTGAACATCCAGAACTG 1440  
1381 GTGCAAGCCATGAGACTGCGCGAGAGAGAGACTGGAACGTGAACATCCAGAACTG 1440  
1441 GTGGCAAGCTGAATGGGCGAGCAAGATCTACCCCGCATCAAGTGGCGCAGCTGTC 1500  
1441 GTGGCAAGCTGAATGGGCGAGCAAGATCTACCCCGCATCAAGTGGCGCAGCTGTC 1500  
1501 AAGCTGTGCGCGGCGCAAGGCGCTTACCGACATGTCGCCCTTGAACGAGAGCCGAG 1560  
1501 AAGCTGTGCGCGGCGCAAGGCGCTTACCGACATGTCGCCCTTGAACGAGAGCCGAG 1560  
1561 CTGGAAGCTGGCGGAGAACCGGCGAGTCCGTGGCGAGCCCGTGCACGAGCTGTAACGAC 1620  
1561 CTGGAAGCTGGCGGAGAACCGGCGAGTCCGTGGCGAGCCCGTGCACGAGCTGTAACGAC 1620  
1621 CCGAGCAAGACCTGTGTGCGAGATCCAGAAAGAGGCGCAAGCAAGTGGACCTTACAG 1680  
1621 CCGAGCAAGACCTGTGTGCGAGATCCAGAAAGAGGCGCAAGCAAGTGGACCTTACAG 1680  
1681 ATCTACAGAGACCTTCAAGAACTTGAAGACCGGCAAGTACGCAAGTGGCGACCGCC 1740  
1681 ATCTACAGAGACCTTCAAGAACTTGAAGACCGGCAAGTACGCAAGTGGCGACCGCC 1740  
1741 CACACCAAGAGTGAAGAGAGTGAACCGAGGCGGTGCAAGAAATGCGCATGAGAGCATC 1800  
1741 CACACCAAGAGTGAAGAGAGTGAACCGAGGCGGTGCAAGAAATGCGCATGAGAGCATC 1800  
1801 GTGATCTGGGCGAAGACCCCAAGTTCCGCTGACCATCAAGAGAGACCTGGAGAGCC 1860  
1801 GTGATCTGGGCGAAGACCCCAAGTTCCGCTGACCATCAAGAGAGACCTGGAGAGCC 1860  
1861 TGTGAGCCGACTACTGCGAGGCCACTGTGATCCCGAGTGGAGTTCTGTGAACCCCC 1920  
1861 TGTGAGCCGACTACTGCGAGGCCACTGTGATCCCGAGTGGAGTTCTGTGAACCCCC 1920  
1921 CCGCTGTGAACCTGTGTGATCCAGCTGAGAGAGGCCCATATGCGGCGCGAGACCTTC 1980  
1921 CCGCTGTGAACCTGTGTGATCCAGCTGAGAGAGGCCCATATGCGGCGCGAGACCTTC 1980  
1921 CCGCTGTGAACCTGTGTGATCCAGCTGAGAGAGGCCCATATGCGGCGCGAGACCTTC 1980  
1921 CCGCTGTGAACCTGTGTGATCCAGCTGAGAGAGGCCCATATGCGGCGCGAGACCTTC 1980  
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1981 TACGTGAGCGGCGCGCAACCGCGAGACCAAGATCGGCAAGGCGGCTGTGACCGAC 2040  
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2101 GGCATTCAGCTGGCCCTGAGAGACAGCGGCAAGGCTGAACATGCTGACCGACGCGAG 2160  
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2221 ATCATGAGCAGCTGATCAAGAGAGAGAGTGTACCTGAGCTGGGTGCGCCCAAG 2280  
2281 GGCATCGCGGCAAGAGAGATTCACAGAGCTGTGAGAGAGGCTTCGCAAGGCTG 2340  
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2341 TTCTGTGAGCGGATGATGAGCGGATGATGATCTACAGATTAATGAGCACTGTGACG 2400  
2341 TTCTGTGAGCGGATGATGAGCGGATGATGATGATCTACAGATTAATGAGCACTGTGACG 2400  
2401 GGCAGGCGGCGCTAAGATGATTAAGGCTTCCGCGGCTGAGCCGCTGAAATTC 2457

Db 2401 GGCAGCGCGGCCCTAGATCGATTAAAGCTTCCGGGGCTAGACCGGTGAATTC 2457

RESULT 2  
US-10-190-435-43  
Sequence 43, Application US/10190435  
Publication No. US20030143248A1  
GENERAL INFORMATION:  
APPLICANT: ZUR MEGEDE, Jan  
APPLICANT: BARNETT, Susan W.  
APPLICANT: LIAN, Ying  
APPLICANT: ENGELBRECHT, Susan  
APPLICANT: VAN KENSBURG, Birelita J.  
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
FILE REFERENCE: P18133.003 / 2302-18133  
CURRENT APPLICATION NUMBER: US/10/190,435  
CURRENT FILING DATE: 2002-12-30  
NUMBER OF SEQ ID NOS: 319  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 43  
LENGTH: 2445  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: p2Pol.opt.YMMW\_C  
US-10-190-435-43

Query Match 99.4%; Score 2443.4; DB 6; Length 2445;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2444; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Db 1 GCCACCATGCGCCGAGCCATGAGCCAGCCAGCCCAACCTCTGATGACGCGAGC 60  
Qy 67 AACTTCAGAGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGGCCATC 126  
Db 61 AACTTCAGAGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGGCCATC 120  
Qy 127 GCCCGCACTGCG 186  
Db 121 GCCCGCACTGCG 180  
Qy 187 CAGATGAAGACTGCAACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 246  
Db 181 CAGATGAAGACTGCAACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 240  
Qy 247 CAGGCAAGGCG 306  
Db 241 CAGGCAAGGCG 300  
Qy 307 GAGCTGCAAGTGGCG 366  
Db 301 GAGCTGCAAGTGGCG 360  
Qy 367 CTGAACCTTCCCGCGAGTCACTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 426  
Db 361 CTGAACCTTCCCGCGAGTCACTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 420  
Qy 427 CAGATCAAGAGGCG 486  
Db 421 CAGATCAAGAGGCG 480  
Qy 487 CTGCGCGCGCAAGTGAAGCCCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCGCG 546  
Db 481 CTGCGCGCGCAAGTGAAGCCCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCGCG 540  
Qy 547 CAGTACGACGAGATCTGATCGAGATCTGCGGCAAGAGGCGCGCGCGCGCGCGCGCG 606  
Db 541 CAGTACGACGAGATCTGATCGAGATCTGCGGCAAGAGGCGCGCGCGCGCGCGCGCG 600  
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Db 601 GGGCCCAACCCCGTGAACATCATGCGCGCGCAACATGCTGACCCAGCTGGGCTGCA 660  
Qy 667 AACTTCGCATGAGCCCATTCGAGACCGTGGCCGCTGAAGCTGAAAGCCCGGATGAG 726  
Db 661 AACTTCGCATGAGCCCATTCGAGACCGTGGCCGCTGAAGCTGAAAGCCCGGATGAG 720  
Qy 727 CCCAAGTGAAGAGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 786  
Db 721 CCCAAGTGAAGAGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 780  
Qy 787 GAGGATGGAAGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 846  
Db 781 GAGGATGGAAGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 840  
Qy 847 CCCGTGTTCGCATCAAGAAAGAGCAGACCAAGTGGCGCAAGCTGTGTGACTTCGCG 906  
Db 841 CCCGTGTTCGCATCAAGAAAGAGCAGACCAAGTGGCGCAAGCTGTGTGACTTCGCG 900  
Qy 907 GAGCTGAACAGCGGCAACCGAGCTTCTGGGAGGTGAGCTGGGCACTCCCGACCGCG 966  
Db 901 GAGCTGAACAGCGGCAACCGAGCTTCTGGGAGGTGAGCTGGGCACTCCCGACCGCG 960  
Qy 967 GGCCTGAAGAGAGAGAGCGTGAACCGTGTGAGCGTGGCGAGCGCTTCAAGCGTG 1026  
Db 961 GGCCTGAAGAGAGAGAGCGTGAACCGTGTGAGCGTGGCGAGCGCTTCAAGCGTG 1020  
Qy 1027 CCCCTGAGCAGAGACTTCGCGAAGTACACCGCTTCAACATCCCGAGATCAACAGAG 1086  
Db 1021 CCCCTGAGCAGAGACTTCGCGAAGTACACCGCTTCAACATCCCGAGATCAACAGAG 1080  
Qy 1087 ACCCGCGGCACTCGGCTACAGTACCAAGTCTCCCGAGGCGTGAAGGCGCGCGCG 1146  
Db 1081 ACCCGCGGCACTCGGCTACAGTACCAAGTCTCCCGAGGCGTGAAGGCGCGCGCG 1140  
Qy 1147 ATCTTCAGAGCAGAGTGAACCAAGATCTCTGAGCCCTTCCGCGCGCGCGCGCGAGTC 1206  
Db 1141 ATCTTCAGAGCAGAGTGAACCAAGATCTCTGAGCCCTTCCGCGCGCGCGCGAGTC 1200  
Qy 1207 GTGATCTACAGGCGCGCGCTGTACGTGGGAGCGAGCTGAGATGGCGAGCGCGCG 1266  
Db 1201 GTGATCTACAGGCGCGCGCTGTACGTGGGAGCGAGCTGAGATGGCGAGCGCGCG 1260  
Qy 1267 AAGATCGAGAGCTGGCGCGAGCACCTGCTGGCGCTTCCAGCCCGCGCAAGAG 1326  
Db 1261 AAGATCGAGAGCTGGCGCGAGCACCTGCTGGCGCTTCCAGCCCGCGCAAGAG 1320  
Qy 1327 CACCGAAGAGGCGCGCGCTTCTGCGCCATGAGCTGACACCCGCAAGTGAACGCTGAG 1386  
Db 1321 CACCGAAGAGGCGCGCGCTTCTGCGCCATGAGCTGACACCCGCAAGTGAACGCTGAG 1380  
Qy 1387 CCATTCAGAGTGGCGCGAGAGAGCTGAGACGCTGAACGATCAAGAGCTGTGGCG 1446  
Db 1381 CCATTCAGAGTGGCGCGAGAGAGCTGAGACGCTGAACGATCAAGAGCTGTGGCG 1440  
Qy 1447 AAGCTGAACCTGGCGCGAGCTTACCCCGGCAATCAAGTGGCGCGAGCTGTGAAGTG 1506  
Db 1441 AAGCTGAACCTGGCGCGAGCTTACCCCGGCAATCAAGTGGCGCGAGCTGTGAAGTG 1500  
Qy 1507 CTGGCGGCGCGCAAGGCGCTGACCGACATGCTGGCGCGCGCGCGCGCGCGCGCG 1566  
Db 1501 CTGGCGGCGCGCAAGGCGCTGACCGACATGCTGGCGCGCGCGCGCGCGCGCGCG 1560  
Qy 1567 CTGGCGGAGAACGCGAGATCTTGGCGGAGCGCGTGAACGCGCTGTACTAGACCCGAG 1626  
Db 1561 CTGGCGGAGAACGCGAGATCTTGGCGGAGCGCGTGAACGCGCTGTACTAGACCCGAG 1620  
Qy 1627 AAGGACTGTGGTGGCGAGATCTCAGAGCAGGCGCAAGCAGTGAAGCTTACCAATCTAC 1686  
Db 1621 AAGGACTGTGGTGGCGAGATCTCAGAGCAGGCGCAAGCAGTGAAGCTTACCAATCTAC 1680  
Qy 1687 CAGGAGCGCTTCAAGAACTGGAAGACCGGCAAGTACCCAGATGCGCACCGCCACAC 1746



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Db 1681 CAGGAGCCCTTCCAGAACCTGAAAGCCGCAAGTACGCCAAGATGCGCACCCGCCACACC 1740
QY 1747 AACGAGCTGAGAGAGCTGACCGAGGCGCGTGCAGAAAGATGCGCATGGAGAGCATTCGGATC 1806
Db 1741 AACGAGCTGAGAGAGCTGACCGAGGCGCGTGCAGAAAGATGCGCATGGAGAGCATTCGGATC 1800
QY 1807 TGGGGCAGAACCCCAAGTTCCGCTCCCATCCAGAAAGAGACCTGGAGACCTGGTGG 1866
Db 1801 TGGGGCAGAACCCCAAGTTCCGCTCCCATCCAGAAAGAGACCTGGAGACCTGGTGG 1860
QY 1867 ACCGACTACTGCGAGGCGCACCTGGATCCCGAGTGGGAAGTTGGTGAACCCCCCTGG 1926
Db 1861 ACCGACTACTGCGAGGCGCACCTGGATCCCGAGTGGGAAGTTGGTGAACCCCCCTGG 1920
QY 1927 GTGAAGCTGTGGTACCAAGCTGAGAGAGAGCCCATCATCGAGCGCGAGACCTTTCTAGTG 1986
Db 1921 GTGAAGCTGTGGTACCAAGCTGAGAGAGAGCCCATCATCGAGCGCGAGACCTTTCTAGTG 1980
QY 1987 GACGGCGCGCCCAACCGCGAGACCAAGATCGGCAAGCGCGCTACGTGACCGACCGGGGC 2046
Db 1981 GACGGCGCGCCCAACCGCGAGACCAAGATCGGCAAGCGCGCTACGTGACCGACCGGGGC 2040
QY 2047 CGGCAAGAGATGTGAGCTGTACCGACCAACCAACCAAGACCGAGCTGCGAGGCGATC 2106
Db 2041 CGGCAAGAGATGTGAGCTGTACCGACCAACCAACCAAGACCGAGCTGCGAGGCGATC 2100
QY 2107 CAGCTGGCCCTGCAAGAGACGCGCGAGCGAGTGAACATGTGTACCGAGACCGAGTACGCGC 2166
Db 2101 CAGCTGGCCCTGCAAGAGACGCGCGAGCGAGTGAACATGTGTACCGAGACCGAGTACGCGC 2160
QY 2167 CTGGGATCATCCAGGCGCCGCGCAAGAGAGAGAGCGAGCTGTGTAACAGATCATC 2226
Db 2161 CTGGGATCATCCAGGCGCCGCGCAAGAGAGAGAGCGAGCTGTGTAACAGATCATC 2220
QY 2227 GAGCAGCTGATCAAGAGAGAGAGTGTACTGTAGCTGGGTGCCGCCCAAGGGCATC 2286
Db 2221 GAGCAGCTGATCAAGAGAGAGAGTGTACTGTAGCTGGGTGCCGCCCAAGGGCATC 2280
QY 2287 GCGCGCAAGAGATGCAAGAGCTGTGAGAGAGAGGAGTCCGCAAGGTGTGTTCTGG 2346
Db 2281 GCGCGCAAGAGATGCAAGAGCTGTGAGAGAGAGGAGTCCGCAAGGTGTGTTCTGG 2340
QY 2347 GACGGATCATGCGCGCATCTGTATCTACAGTACATGAGACGACCTGTACGTGGCGAC 2406
Db 2341 GACGGATCATGCGCGCATCTGTATCTACAGTACATGAGACGACCTGTACGTGGCGAC 2400
QY 2407 GCGCGCTTGAAGATCGATTAAGTTCCCGGGGCTAGACACCGGT 2451
Db 2401 GCGCGCTTGAAGATCGATTAAGTTCCCGGGGCTAGACACCGGT 2445

RESULT 3
US-10-190-305A-37
; Sequence 37, Application US/10190305A
; Publication No. US20030198621A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan
; APPLICANT: LIAN, Ying
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
; TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: 2302-18702 / 18702.002
; CURRENT APPLICATION NUMBER: US/10/190,305A
; CURRENT FILING DATE: 2002-07-05
; NUMBER OF SEQ ID NOS: 93
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 37
; LENGTH: 2445
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: p2pol.opt.yymm_C
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US-10-190-305A-37
Query Match 99.4%; Score 2443.4; DB 6; Length 2445;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2444; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 7 GCCACCATGGCGGAGGCGCATGAGCCAGGCGCACAGCGCCACATCTGTATGACGGCAGC 66
Db 1 GCCACCATGGCGGAGGCGCATGAGCCAGGCGCACAGCGCCACATCTGTATGACGGCAGC 60
QY 67 AACTTCAAGGGGCCCAAGGCGCATCATCAAGTCTTCAACTGGGGCAAGAGGGCCACATC 126
Db 61 AACTTCAAGGGGCCCAAGGCGCATCATCAAGTCTTCAACTGGGGCAAGAGGGCCACATC 120
QY 127 GCCCGCAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 186
Db 121 GCCCGCAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 180
QY 187 CAGATGAAGAGACTGACACCGAGCGCGCAAGCTTCTTCCGCGAGGACCTGGCTTTCCGC 246
Db 181 CAGATGAAGAGACTGACACCGAGCGCGCGCAAGCTTCTTCCGCGAGGACCTGGCTTTCCGC 240
QY 247 CAGGGCAAGGCGCGCGAGTTCCTCCAGCGAGCAAGACCGCGCGCGCGCGCGCGCGCGCG 306
Db 241 CAGGGCAAGGCGCGCGAGTTCCTCCAGCGAGCAAGACCGCGCGCGCGCGCGCGCGCGCG 300
QY 307 GAGCTGAGAGTGGCGCGCGCAACACCGCGAGCGAGCGCGCGCGCGCGCGCGCGCGCGCG 366
Db 301 GAGCTGAGAGTGGCGCGCGCAACACCGCGAGCGAGCGCGCGCGCGCGCGCGCGCGCGCG 360
QY 367 CTGAACCTTCCCGCAGATCACTCTGTGGCAGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 426
Db 361 CTGAACCTTCCCGCAGATCACTCTGTGGCAGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 420
QY 427 CAGATCAAGAGAGCGCTGTGACACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 486
Db 421 CAGATCAAGAGAGCGCTGTGACACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 480
QY 487 CTGGCGCGCAAGTGGAGAGCGCGCAAGATGATCGCGCGCATCGCGCGCTTCACTAAGGTGGC 546
Db 481 CTGGCGCGCAAGTGGAGAGCGCGCAAGATGATCGCGCGCATCGCGCGCTTCACTAAGGTGGC 540
QY 547 CAGTACAGACAGATCTGTATCGAGATCTGGCGCAAGAGAGCGCATCGGACCGTGTGATC 606
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QY 607 GCGCGCGCGCGCGCGTGAACATCATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 666
Db 601 GCGCGCGCGCGCGCGTGAACATCATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 660
QY 667 AACTTCCCGCATGAGCGCGCATGAGACCGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 726
Db 661 AACTTCCCGCATGAGCGCGCATGAGACCGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 720
QY 727 CCGAAGGTGAAGCAAGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 786
Db 721 CCGAAGGTGAAGCAAGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 780
QY 787 GAGGAGATGAGAGAGAGAGGCGCAAGATCACCAGATCGCGCGCGCGCGCGCGCGCGCGCG 846
Db 781 GAGGAGATGAGAGAGAGAGGCGCAAGATCACCAGATCGCGCGCGCGCGCGCGCGCGCGCG 840
QY 847 CCGGTGTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 906
Db 841 CCGGTGTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900
QY 907 GAGCTGAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 966
Db 901 GAGCTGAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 960
QY 967 GCGCTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1026
Db 961 GCGCTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1020
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QY 1027 CCCCTGAGCAGAGACTTCCGCAAGTACACCGCTTCAACATCCCAAGCAAGAG 1086  
 DB 1021 CCCCTGAGCAGAGACTTCCGCAAGTACACCGCTTCAACATCCCAAGCAAGAG 1080  
 QY 1087 ACCCCCGGCAATCCGCTACCAAGTACAACTGCTGCCCAAGGGCTGAAAGGGCCGACAG 1146  
 DB 1081 ACCCCCGGCAATCCGCTACCAAGTACAACTGCTGCCCAAGGGCTGAAAGGGCCGACAG 1140  
 QY 1147 ATCTTCAGAGCAGCATGACCAAGATCTGAGACCTTCCGCGCCGCAACCCCGAGATC 1206  
 DB 1141 ATCTTCAGAGCAGCATGACCAAGATCTGAGACCTTCCGCGCCGCAACCCCGAGATC 1200  
 QY 1207 GTGATCTACCAAGGCCCCCTGTATCGTGGGAGGACCTGAGATCGGCGACACCCGCTC 1266  
 DB 1201 GTGATCTACCAAGGCCCCCTGTATCGTGGGAGGACCTGAGATCGGCGACACCCGCTC 1260  
 QY 1267 AGATCGAGAGAGCTGGGCAAGACCTGCTGGGCTTCAACACCCCGCAAGAGAG 1326  
 DB 1261 AGATCGAGAGAGCTGGGCAAGACCTGCTGGGCTTCAACACCCCGCAAGAGAG 1320  
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 DB 1321 CACCAAGAGAGGCCCCCTTCTGCGCCATGAGCTGACACCCGCAAGAGAG 1380  
 QY 1387 CCCATGAGCTGCTGCGCAAGAGAGAGCTGAGCCGTGAACGACATCCAAAGCTGTGGGC 1446  
 DB 1381 CCCATGAGCTGCTGCGCAAGAGAGAGCTGAGCCGTGAACGACATCCAAAGCTGTGGGC 1440  
 QY 1447 AACCTGAATCTGGGCAAGCAGATCTACCCCGGCAATCAAGTGGGCGAGCTGTCAAGCTG 1506  
 DB 1441 AACCTGAATCTGGGCAAGCAGATCTACCCCGGCAATCAAGTGGGCGAGCTGTCAAGCTG 1500  
 QY 1507 CTGCGGGGCGCCCAAGGCTTGAACGACATGTCGCTGACCGGCTGTATCTACGACCCGAC 1566  
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 DB 1561 CTGCGCGAGAACCGCGAGATCTGCGGAGCCCGTGCAGCGGCTGTATCTACGACCCGAC 1620  
 QY 1627 AAGGACTGTGTGCTGAGATCTCAGAGACAGGCGCCACACAGTGTGACCTTACAGATTTAC 1686  
 DB 1621 AAGGACTGTGTGCTGAGATCTCAGAGACAGGCGCCACACAGTGTGACCTTACAGATTTAC 1680  
 QY 1687 CAGGAGCTTTCAGAGACCTTGAAGACCGGCAAGTACCGCAAGATGCGCACCGCCACAC 1746  
 DB 1681 CAGGAGCTTTCAGAGACCTTGAAGACCGGCAAGTACCGCAAGATGCGCACCGCCACAC 1740  
 QY 1747 AACGACGTGAAGCAGTGAACGAGGCGGTGCAAGATGCGCATGAGAGCATGTGATC 1806  
 DB 1741 AACGACGTGAAGCAGTGAACGAGGCGGTGCAAGATGCGCATGAGAGCATGTGATC 1800  
 QY 1807 TGGGGCAAGACCCCAAGTTCCGCTGCGCTTCCAGAAAGAGACCTTGGAGAGACTTGTGG 1866  
 DB 1801 TGGGGCAAGACCCCAAGTTCCGCTGCGCTTCCAGAAAGAGACCTTGGAGAGACTTGTGG 1860  
 QY 1867 ACCGACTACTGAGGAGGCACTGTGATCCCGAGTGGAGGTTCTGAGAACCCCCCTCTG 1926  
 DB 1861 ACCGACTACTGAGGAGGCACTGTGATCCCGAGTGGAGGTTCTGAGAACCCCCCTCTG 1920  
 QY 1927 GTGAAGCTGTGTGTACAGCTGAGAGAGAGCCATCTATCTGCGCGCGAGACCTTCTACGTG 1986  
 DB 1921 GTGAAGCTGTGTGTACAGCTGAGAGAGAGCCATCTATCTGCGCGCGAGACCTTCTACGTG 1980  
 QY 1987 GACGGCGGCGCCCAACCGGAGAGACCAAGATCGGCAAGGCGCGCTACGTGACCGAGCGGCG 2046  
 DB 1981 GACGGCGGCGCCCAACCGGAGAGACCAAGATCGGCAAGGCGCGCTACGTGACCGAGCGGCG 2040  
 QY 2047 CGGCAAGAGATGTGAGGCTGACCGAGACCAACCAAGAGACCGAGCTGACAGGCTC 2106  
 DB 2041 CGGCAAGAGATGTGAGGCTGACCGAGACCAACCAAGAGACCGAGCTGACAGGCTC 2100

QY 2107 CAGCTGGCCCTGACAGACAGCGGACGAGGTGAACATGTGACCGACAGCAATGACGCC 2166  
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 QY 2167 CTGGGATCATCAGGCGCCAGCCCGCAAGAGCGAGAGCGAGCTGTGTAACAGATCATC 2226  
 DB 2161 CTGGGATCATCAGGCGCCAGCCCGCAAGAGCGAGAGCGAGCTGTGTAACAGATCATC 2220  
 QY 2227 GAGCAGCTATCAAGAGAGAGAGGTGTCTGAGCTGGGTGCCGCCCAAGGGCATC 2286  
 DB 2221 GAGCAGCTATCAAGAGAGAGAGGTGTCTGAGCTGGGTGCCGCCCAAGGGCATC 2280  
 QY 2287 GGGCGCAAGAGAGATGCAAGAGCTGTGAGCAAGGAGCATCCGCAAGGTGCTTCTG 2346  
 DB 2281 GGGCGCAAGAGAGATGCAAGAGCTGTGAGCAAGGAGCATCCGCAAGGTGCTTCTG 2340  
 QY 2347 GACGCGATGATGCGGCGCATCTGTATCTACAGTACATGACGACCTGTACGTGGCAGC 2406  
 DB 2341 GACGCGATGATGCGGCGCATCTGTATCTACAGTACATGACGACCTGTACGTGGCAGC 2400  
 QY 2407 GGGCGCCTTAGATCGATTAAAGCTTCCCGGGGCTTAGCACCGGT 2451  
 DB 2401 GGGCGCCTTAGATCGATTAAAGCTTCCCGGGGCTTAGCACCGGT 2445

RESULT 4  
 US-10-190-435-9  
 ; Sequence 9, Application US/10190435  
 ; Publication No. US20030143248A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: ZUR MEDEDE, Jan  
 ; APPLICANT: BARNETT, Susan W.  
 ; APPLICANT: LIAN, Yang  
 ; APPLICANT: ENGELBRECHT, Susan  
 ; APPLICANT: VAN RENSBURG, Estrelita J.  
 ; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
 ; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
 ; FILE REFERENCE: P18133.003 / 2302-18133  
 ; CURRENT APPLICATION NUMBER: US/10/190.435  
 ; CURRENT FILING DATE: 2002-12-30  
 ; NUMBER OF SEQ ID NOS: 319  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 9  
 ; LENGTH: 3930  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: GagCompPolmut\_C  
 US-10-190-435-9

Query Match 99.2%; Score 2436.4; DB 6; Length 3930;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 2437; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 14 TGGCCGAGGCGCATGAGCGGCGCCAGCCCAACATCTGATGACGCGCAACTTCA 73  
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 DB 1547 AGGGCCCCAAGCGCATCATGATGCTTCAACTGCGGCAAGAGGCGCCACATCGCCGCA 1606  
 QY 134 ACTGCGCGCGCCCGCAAGAGGCGTGTGGAAGTCCGGCAAGAGGCGCCACAGATGA 193  
 DB 1607 ACTGCGCGCGCCCGCAAGAGGCGTGTGGAAGTCCGGCAAGAGGCGCCACAGATGA 1666  
 QY 194 AGGACTGCAACGAGCGGCGCAAGCTTCTTCCGCGAGAGCTGTGCTTCCCGAGGCA 253  
 DB 1667 AGGACTGCAACGAGCGGCGCAAGCTTCTTCCGCGAGAGCTGTGCTTCCCGAGGCA 1726  
 QY 254 AGGCGCGGAGTTTCCCGAGGAGCAAGACCGCGCAAAGGCGCCACAGCGGAGCTGC 313  
 DB 1727 AGGCGCGGAGTTTCCCGAGGAGCAAGACCGCGCAAAGGCGCCACAGCGGAGCTGC 1786

314 AGGTGCGCGGCAAAACCCCGAGGAGGCGGCGCCGAGGCGCAGGCGCACTTGAATCT 373  
1787 AGGTGCGCGGCAAAACCCCGAGGAGGCGGCGCCGAGGCGCAGGCGCACTTGAATCT 1846  
374 TCCCCAGATCACTCTGTGGCAGCGCCCTGTGTGACATCAAGTGGCGGCGAGTCA 433  
1847 TCCCCAGATCACTCTGTGGCAGCGCCCTGTGTGACATCAAGTGGCGGCGAGTCA 1906  
434 AGGAGGCGCTGTGGCAGCGGCGGCGAGCACCGTGTGTGAGGAGGAGTGGCGCGG 493  
1907 AGGAGGCGCTGTGGCAGCGGCGGCGAGCACCGTGTGTGAGGAGGAGTGGCGCGG 1966  
494 GCAAGTGAAGGCCAAGATGATCGGCGGATCGGCGGCTTCAATCAAGTGGCGGAGTAC 553  
1967 GCAAGTGAAGGCCAAGATGATCGGCGGATCGGCGGCTTCAATCAAGTGGCGGAGTAC 2026  
554 ACCAGATCTGATCGAGATCTGGCGGAGAGAGGCAATCGGCAACCGTGTGATCGGCGCA 613  
2027 ACCAGATCTGATCGAGATCTGGCGGAGAGAGGCAATCGGCAACCGTGTGATCGGCGCA 2086  
614 CCCCCGTGAACATCATCGGCGCGGCAATGTGACCCAGCTGGGCTGGCACTTGAATTC 673  
2087 CCCCCGTGAACATCATCGGCGCGGCAATGTGACCCAGCTGGGCTGGCACTTGAATTC 2146  
674 CCATCAGCCCCATCGAGACCGTGGCCGCTGAAGCTGAAGCCCGGCAATGACGCGCCCAAG 733  
2147 CCATCAGCCCCATCGAGACCGTGGCCGCTGAAGCTGAAGCCCGGCAATGACGCGCCCAAG 2206  
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2207 TGAAGCAGTGGCCCTGTGACCGAGAGAGATCAAGGCCCTGACCGGCAATCTGGAGAGAG 2266  
794 TGAAGAGAGAGGAGAGATCAACCAATGGGCCCCGAGAAACCCCTTCAACACCCCGGTGT 853  
2267 TGAAGAGAGAGGAGAGATCAACCAATGGGCCCCGAGAAACCCCTTCAACACCCCGGTGT 2326  
854 TGGCCATCAAGAAAGAGAGACAGACCAAGTGGCGGCAAGCTGTGACTTCCGAGAGCTGA 913  
2327 TGGCCATCAAGAAAGAGAGACAGACCAAGTGGCGGCAAGCTGTGACTTCCGAGAGCTGA 2386  
914 ACAAGCGACCCAGACCTTCTGGAGAGTGCAGCTGGGCAATCCCCACCCCGCGGACTGA 973  
2387 ACAAGCGACCCAGACCTTCTGGAGAGTGCAGCTGGGCAATCCCCACCCCGCGGACTGA 2446  
974 ABAAGAGAGAGGCGGAGCCGTGCTGAGAGTGGAGACCGCTTCACTTCAAGCTGGCCCTGG 1033  
2447 ABAAGAGAGAGGCGGAGCCGTGCTGAGAGTGGAGACCGCTTCACTTCAAGCTGGCCCTGG 2506  
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2507 ACGAGGACTTCCGAGAGTACACCGGCTTCAACATCCCGAGCATCAACAAGAGACCCCG 2566  
1094 GCATCGGACTCAAGTACCAAGTGTGCTGCCCAAGGCTGGAAGGCGAGGCCCAAGATCTTCC 1153  
2567 GCATCGGACTCAAGTACCAAGTGTGCTGCCCAAGGCTGGAAGGCGAGGCCCAAGATCTTCC 2626  
1154 AGAGCGCATGACCAAGATCTTGAAGCCCTTCCGCGCCCGGCAACCCCGAGATGTGTATCT 1213  
2627 AGAGCGCATGACCAAGATCTTGAAGCCCTTCCGCGCCCGGCAACCCCGAGATGTGTATCT 2686  
1214 ACCAGGCCCCCGTGTGCTGGGAGGAGACCTGAGATCGGCGAGCAACCGGCGCAAGATG 1273  
2687 ACCAGGCCCCCGTGTGCTGGGAGGAGACCTGAGATCGGCGAGCAACCGGCGCAAGATG 2746  
1274 AGGAGCTGGCGCAAGCACTGTGCTGGCTGGGCTTCAACAACCCCGCAAGAAAGCACAGAG 1333  
2747 AGGAGCTGGCGCAAGCACTGTGCTGGCTGGGCTTCAACAACCCCGCAAGAAAGCACAGAG 2806  
1334 AGGAGCTGGCTTCTGTGCCCATGAGTGCACCCCGCAAGTGGACCGTGGCAGCCCATGG 1393  
2807 AGGAGCTGGCTTCTGTGCCCATGAGTGCACCCCGCAAGTGGACCGTGGCAGCCCATGG 2866

1394 AGCTGCCGAGAGAGAGAGTGGACCTGTGAACGACATCCAGAACTGTGGCAAGTGA 1453  
2867 AGCTGCCGAGAGAGAGTGGACCTGTGAACGACATCCAGAACTGTGGCAAGTGA 2926  
1454 ACTGGGCGGAGCCAGATCTTACCCCGGCAATCAAGTGGCGGAGTGGCAAGCTGGCGG 1513  
2927 ACTGGGCGGAGCCAGATCTTACCCCGGCAATCAAGTGGCGGAGTGGCAAGCTGGCGG 2986  
1514 GCGCCAGGCGCTTGACCGGACATGTGTGCCCTTGACCGAGAGGCGGAGCTGGAGCGG 1573  
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3047 AGAACCGGAGATCTTGGCGGAGCCCGTGACCGGCTGTATCTACGACCCCAAGAGACC 3106  
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1694 CCTTCAAGAACTTGAAGACCGGCAAGTACGCAAGATGGCGACCGGCGCAACCAAGAGCC 1753  
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1754 TGAAGCAGTGAACGAGGCGGTGCAAGAGATCGCATGGAAGCATGTGATCTGGGCA 1813  
3227 TGAAGCAGTGAACGAGGCGGTGCAAGAGATCGCATGGAAGCATGTGATCTGGGCA 3286  
1814 AGACCCCAAGTTCGGCTGTGCCATTCAGAAAGAGACCTGGGAGACCTTGTGTGAACCT 1873  
3287 AGACCCCAAGTTCGGCTGTGCCATTCAGAAAGAGACCTGGGAGACCTTGTGTGAACCT 3346  
1874 ACTGGAGGCGACCTGTGATCCCGAGTGGAGATTGTGTGAACACCCCGCTGTGTGAAC 1933  
3347 ACTGGAGGCGACCTGTGATCCCGAGTGGAGATTGTGTGAACACCCCGCTGTGTGAAC 3406  
1934 TGTGTGATCCAGCTGAGAGAGAGCCCATCATGCGCGCGAGACCTTCTAGTGGACGCGG 1993  
3407 TGTGTGATCCAGCTGAGAGAGAGCCCATCATGCGCGCGAGACCTTCTAGTGGACGCGG 3466  
1994 CCGCCAACTGGAGAGACCAAGATTCGGCAAGCCCGCTTACTGTGACCCGCGGCGGCAAG 2053  
3467 CCGCCAACTGGAGAGACCAAGATTCGGCAAGCCCGCTTACTGTGACCCGCGGCGGCAAG 3526  
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2114 CCTTGAAGAGACGCGGCAAGGAGTGAACATGTGTGACCGACAGCCAGTACGCTTGGGCA 2173  
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2174 TCATTCAGGCGCCAGCCCGCAAGAGGAGAGGAGCTGTGTGAACCAAGATCTGAGACAC 2233  
3647 TCATTCAGGCGCCAGCCCGCAAGAGGAGAGGAGCTGTGTGAACCAAGATCTGAGACAC 3706  
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2294 ACGAGCAGATTCGACCAAGCTGTGAGAGAGGAGATCCGCAAGGTGTCTTGAACGAGCA 2353  
3767 ACGAGCAGATTCGACCAAGCTGTGAGAGAGGAGATCCGCAAGGTGTCTTGAACGAGCA 3826  
2354 TCGATGGCGGATCTGTGATCTTACGAGTACATGAGCACTGTACGTTGAGGAGAGGCGGCC 2413  
3827 TCGATGGCGGATCTGTGATCTTACGAGTACATGAGCACTGTACGTTGAGGAGAGGCGGCC 3886  
2414 CTAAGATGGAATTAAGCTTCCGCGGCTAGACCGGCT 2451  
3887 CTAAGATGGAATTAAGCTTCCGCGGCTAGACCGGCT 3924



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OY 1735 ACCGCCACCAACGACGTGAGACGCTGACCGAGCCGTGCAGAGAGATCCCATGAG 1794
DB 1741 ACCGCCACCAACGACGTGAGACGCTGACCGAGCCGTGCAGAGAGATCCCATGAG 1800
OY 1795 AGCATCTGATCTGGGGCAAGACCCCAAGTTCCGCTTCCCATCCAGAGAGACCTGG 1854
DB 1801 ACCATCTGATCTGGGGCAAGACCCCAAGTTCCGCTTCCCATCCAGAGAGACCTGG 1860
OY 1855 GAGACCTGTGGACGACCTACGAGGACGAGGACCTGTGATCCCGAGTGGAGTTCCGTAAC 1914
DB 1861 GAGACCTGTGGACGACCTACGAGGACGAGGACCTGTGATCCCGAGTGGAGTTCCGTAAC 1920
OY 1915 ACCCCCCCTGTGTGAGAGCTGTGTGACAGCTGTGAGAGAGAGCCATCATCGAGCCGAG 1974
DB 1921 ACCCCCCCTGTGTGAGAGCTGTGTGACAGCTGTGAGAGAGAGCCATCATCGAGCCGAG 1980
OY 1975 ACCCTTCTAGTGAACGCGCCCGCCCAACCGGAGACCAAGATGTGGCAAGGCCCTGACCTG 2034
DB 1981 ACCCTTCTAGTGAACGCGCCCGCCCAACCGGAGACCAAGATGTGGCAAGGCCCTGACCTG 2040
OY 2035 ACCGACCGGGGCGCGGAGAGATGTGAGCTGTGACCGGAGACCAACGAGAGAGAGCCGAG 2094
DB 2041 ACCGACCGGGGCGCGGAGAGATGTGAGCTGTGACCGGAGACCAACGAGAGAGAGCCGAG 2100
OY 2095 CTGACAGGACCATTCAGCTGAGCCCTGTGACAGACAGCGGACGAGGTGAACATCTGTGACGAC 2154
DB 2101 CTGACAGGACCATTCAGCTGAGCCCTGTGACAGACAGCGGACGAGGTGAACATCTGTGACGAC 2160
OY 2155 AGCCAGTACGCTCTGTGGGATCATTCAGGCGCCAGCCGACCAAGAGCCAGAGCTGTGG 2214
DB 2161 AGCCAGTACGCTCTGTGGGATCATTCAGGCGCCAGCCGACCAAGAGCCAGAGCTGTGG 2220
OY 2215 AACCATGATCATGAGCAGCTGTATCAAGAGAGAGAGAGTGTACTGTGAGCTGGGTGCCGAC 2274
DB 2221 AACCATGATCATGAGCAGCTGTATCAAGAGAGAGAGAGTGTACTGTGAGCTGGGTGCCGAC 2280
OY 2275 CACAAAGGACATCGGCGGCAACGAGCAGATTCGACAACTGTGTGAGCAAGGACATCCGCAAG 2334
DB 2281 CACAAAGGACATCGGCGGCAACGAGCAGATTCGACAACTGTGTGAGCAAGGACATCCGCAAG 2340
OY 2335 GTGCTTCTCTGACGCGCATTCATGCGCGCATGTGTATCTACAGTATCATGACGACCTGG 2394
DB 2341 GTGCTTCTCTGACGCGCATTCATGCGCGCATGTGTATCTACAGTATCATGACGACCTGG 2400
OY 2395 TAGGTGGAGCGCGCGCTTAGATCATTAAGCTTCCGAGGCTAGACCGGTGAA 2454
DB 2401 TAGGTGGAGCGCGCGCTTAGATCATTAAGCTTCCGAGGCTAGACCGGTGAA 2460
OY 2455 TTC 2457
DB 2461 TTC 2463

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RESULT 6
US-10-190-435-10
; Sequence 10, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Sarelle J.
; TITLE OF INVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 10
; LENGTH: 3930
; TYPE: DNA

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; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: GagComp1PolmutatC_C
US-10-190-435-10

Query Match      99.1%; Score 2434.8; DB 6; Length 3930;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 2436; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

OY 14 TGGCCGAGGACATGAGCCAGGACACGAGCCCAATCTGTATGACGACGACCAACTTGA 73
DB 1487 TGGCCGAGGACATGAGCCAGGACACGAGCCCAATCTGTATGACGACGACCAACTTGA 1546
OY 74 AGGCCCCCAAGGACATCATCAAGTCTTCAATGTGGGCAAGAGAGGCCCATGCCCCGA 133
DB 1547 AGGCCCCCAAGGACATCATCAAGTCTTCAATGTGGGCAAGAGAGGCCCATGCCCCGA 1606
OY 134 ACTGCCGCGCCCCCGGCAAGAAAGGCTGTGAAAGTGGCGCAAGAGAGGCCACAGATGA 193
DB 1607 ACTGCCGCGCCCCCGGCAAGAAAGGCTGTGAAAGTGGCGCAAGAGAGGCCACAGATGA 1666
OY 194 AGGACTGACGAGGCGCCAGGACCACTTCTTCGCGAGGACCTGAGCCCTTCCCGAGGGA 253
DB 1667 AGGACTGACGAGGCGCCAGGACCACTTCTTCGCGAGGACCTGAGCCCTTCCCGAGGGA 1726
OY 254 AGGCCCCGAGTTTCCCGAGGACGAGAAACCGGCGCAACAGCCCAACAGCTGGAGCTGC 313
DB 1727 AGGCCCCGAGTTTCCCGAGGACGAGAAACCGGCGCAACAGCCCAACAGCTGGAGCTGC 1786
OY 314 AGGTGGCGGCGACAAACCCCGGACGAGAGCCGGGCGCGAGAGGCCAGGACACCTTGAAT 373
DB 1787 AGGTGGCGGCGACAAACCCCGGACGAGAGCCGGGCGCGAGAGGCCAGGACACCTTGAAT 1846
OY 374 TCCCCAGATCAACCTGTGGAGCGCCCCCTGTGTGATCAAGAGTGGGCGGACAGATGA 433
DB 1847 TCCCCAGATCAACCTGTGGAGCGCCCCCTGTGTGATCAAGAGTGGGCGGACAGATGA 1906
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DB 1907 AGGAGCCCTGTGTGACACCGGCGCGAGACACCGTGTGTGAGAGAGATGAGCTTGC 1966
OY 494 GCAATGGAAGCCCAAGATGATTCGGCGGACATGGCGGCTTCAATCAAGTGGCGCACTAG 553
DB 1967 GCAATGGAAGCCCAAGATGATTCGGCGGACATGGCGGCTTCAATCAAGTGGCGCACTAG 2026
OY 554 ACCAGATCTGATTCGAGATCTGGGCAAGAGGCCATTCGACACCGTGTATGGGCCCA 613
DB 2027 ACCAGATCTGATTCGAGATCTGGGCAAGAGGCCATTCGACACCGTGTATGGGCCCA 2086
OY 614 CCCCGGTGAACATCATTCGCGCGCAACATGCTGACCCAGCTGGGCTGACCTGAACTTCC 673
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OY 674 CCATCAGCCCCATTCGAGACCGTGGCCGTGAAGCTGAAGCCCGGACATGAGCCGCCAAG 733
DB 2147 CCATCAGCCCCATTCGAGACCGTGGCCGTGAAGCTGAAGCCCGGACATGAGCCGCCAAG 2206
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DB 2267 TGAAGAGAGGAGCAAGATCATCAAGATGAGCCCGAGAACCCCTTCAACACCCCGTGT 2326
OY 854 TGGCCATCAAGAAAGAGAGACGACCAAGTGGCGCAAGCTGTGTGACTTCCGGAGACTGA 913
DB 2327 TGGCCATCAAGAAAGAGAGACGACCAAGTGGCGCAAGCTGTGTGACTTCCGGAGACTGA 2386
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DB 2507 AGGAGAGCTTCGCAAGTACCAACCGCTTACCATCCCGAGCATCAACAAGAGACCCCGG 2566
QY 1094 GCATCCGCTACCAAGTACCAACCGCTTACCATCCCGAGCATCAACAAGAGACCCCGG 1153
DB 2567 GCATCCGCTACCAAGTACCAACCGCTTACCATCCCGAGCATCAACAAGAGACCCCGG 2626
QY 1154 AGAGCAGCATGACCAAGATCTTGAGACCTTCCGCGCCGCAACCCCGAGATGTGATCT 1213
DB 2627 AGAGCAGCATGACCAAGATCTTGAGACCTTCCGCGCCGCAACCCCGAGATGTGATCT 2686
QY 1214 ACCAGGCCCCCTGTAGTGGGAGGAGACCTTGAGATGGGCGAGCACCGGCGCAAGATCG 1273
DB 2687 ACCAGGCCCCCTGTAGTGGGAGGAGACCTTGAGATGGGCGAGCACCGGCGCAAGATCG 2746
QY 1274 AGGAGCTGCGCAGACACTCTGCTCGCTGGGCTTCAACACCCCGCAACAAGACACACGA 1333
DB 2747 AGGAGCTGCGCAGACACTCTGCTCGCTGGGCTTCAACACCCCGCAACAAGACACACGA 2806
QY 1334 AGGAGCCCCCTTCTGCTGCTGAGTGAACCCCGCAACAAGTGAACCTGACAGCCATCG 1393
DB 2807 AGGAGCCCCCTTCTGCTGCTGAGTGAACCCCGCAACAAGTGAACCTGACAGCCATCG 2866
QY 1394 AGTGGCCCCGAGAGAGAGTGAACCGTGAACGACATCCGAGAGCTGTGGGCAAGCTGA 1453
DB 2867 AGTGGCCCCGAGAGAGAGTGAACCGTGAACGACATCCGAGAGCTGTGGGCAAGCTGA 2926
QY 1454 ACTGGGCGCAGCAGATCTACCCCGCATCAAGGTGCGCCAGCTGTGCAAGCTGTGCGG 1513
DB 2927 ACTGGGCGCAGCAGATCTACCCCGCATCAAGGTGCGCCAGCTGTGCAAGCTGTGCGG 2986
QY 1514 GCGCCAAAGGCTTGACCGACATGCTGCTGACCGAGAGAGGCGGAGCTGAGTGGCGG 1573
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QY 1634 TGATGGCGGAGATCCAGAGAGAGGCGCAGACAGTGAACCTTACAGATCTACAGAGAGC 1693
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QY 1814 AGAAGCCCAAGTTCCGCTGCGCATTCAGAGAGAGACTTGAGAGACCTGAGAGACCGACT 1873
DB 3287 AGAAGCCCAAGTTCCGCTGCGCATTCAGAGAGAGACTTGAGAGACCTGAGAGACCGACT 3346
QY 1874 ACTGGCAGGCGCACTTGATCCCGAGTGGAGTTCTGTAACACCCCGCTGTGTAAAGC 1933
DB 3347 ACTGGCAGGCGCACTTGATCCCGAGTGGAGTTCTGTAACACCCCGCTGTGTAAAGC 3406
QY 1934 TGTGTATCAGACTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1993
DB 3407 TGTGTATCAGACTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3466
QY 1994 CCGCAACCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2053
DB 3467 CCGCAACCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3526
QY 2054 AGATCTGTAGGCTGACCGAGACCAACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2113

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DB 3527 AGATCTGTAGGCTGACCGAGACCAACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3586
QY 2114 CCTTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2173
DB 3587 CCTTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3646
QY 2174 TCATCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2233
DB 3647 TCATCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3706
QY 2234 TCATCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2293
DB 3707 TCATCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3766
QY 2294 ACAGCAGATCGACCAAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2353
DB 3767 ACAGCAGATCGACCAAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3826
QY 2354 TCATGAGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2413
DB 3827 TCATGAGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3886
QY 2414 CTAGATCGATTTAAAGCTTCCCGGGCTAGACCGGT 2451
DB 3887 CTAGATCGATTTAAAGCTTCCCGGGCTAGACCGGT 3924

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RESULT 7
US-10-190-435-11
; Sequence 11, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Estrelita J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT APPLICATION NUMBER: US/10/190,435
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 11
; LENGTH: 3930
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: GagCompPolmultina_C
US-10-190-435-11

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Query Match          99.1%; Score 2434.8; DB 6; Length 3930;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 2436; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 14 TGCGCGAGGCGCATGAGCGAGGCGCACGAGCGCAACATCTGTATGACGCGAGCAACTTCA 73
DB 1487 TGCGCGAGGCGCATGAGCGAGGCGCACGAGCGCAACATCTGTATGACGCGAGCAACTTCA 1546
QY 74 AGGCGCCCAAGCGCATATCAAGTGTCTTCAACTGCGGCAAGAGAGGCGCAATGCGCGGCA 133
DB 1547 AGGCGCCCAAGCGCATATCAAGTGTCTTCAACTGCGGCAAGAGAGGCGCAATGCGCGGCA 1606
QY 134 ACTGCGCGCGCGCGCGCAAGAGAGGCGTGTGAAGTGCAGGCAAGAGAGGCGCAACAGATGA 193
DB 1607 ACTGCGCGCGCGCGCGCAAGAGAGGCGTGTGAAGTGCAGGCAAGAGAGGCGCAACAGATGA 1666
QY 194 AGGACTGACCGAGAGCGCGCAAGCTTCTTCTGCGAGAGACTTGGCTTCCCGAGGCGCA 253
DB 1667 AGGACTGACCGAGAGCGCGCAAGCTTCTTCTGCGAGAGACTTGGCTTCCCGAGGCGCA 1726

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254 AGGCGCGAGTTCTCCAGCGAGCAAGACCGCGCAACAGCCCCACAGCCGCGAGCTTC 313  
Db AGGCGCGAGTTCTCCAGCGAGCAAGACCGCGCAACAGCCCCACAGCCGCGAGCTTC 1786  
314 AGGTGCGCGCGAGCAACCCCGGAGGAGGCGGCGCCGAGCGCCAGGGGCACTCTGAAT 373  
Db AGGTGCGCGCGAGCAACCCCGGAGGAGGCGGCGCCGAGCGCCAGGGGCACTCTGAAT 1846  
374 TCCCCAGATCACTCTGTGAGCGCGCCCTGGTGAATCAAGGTGGCGGCGAGATCA 433  
Db TCCCCAGATCACTCTGTGAGCGCGCCCTGGTGAATCAAGGTGGCGGCGAGATCA 1906  
1847 TCCCCAGATCACTCTGTGAGCGCGCCCTGGTGAATCAAGGTGGCGGCGAGATCA 1906  
434 AGAGGCGCTGTGAGCAACCGCGCGAGCAACCGTGTGAGAGAGATGAGCTTCGCG 493  
Db AGAGGCGCTGTGAGCAACCGCGCGAGCAACCGTGTGAGAGAGATGAGCTTCGCG 1966  
1907 AGAGGCGCTGTGAGCAACCGCGCGAGCAACCGTGTGAGAGAGATGAGCTTCGCG 1966  
494 GCAAGTGGAAAGCCCAAGATGATGGCGGCAATCGGCGCTTCAACAGGTGGCGAGTAC 553  
Db GCAAGTGGAAAGCCCAAGATGATGGCGGCAATCGGCGCTTCAACAGGTGGCGAGTAC 2026  
1967 GCAAGTGGAAAGCCCAAGATGATGGCGGCAATCGGCGCTTCAACAGGTGGCGAGTAC 2026  
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2267 TGAAGAGAGAGGCAAGATCAACAGATCGGCCCCGAGAACCCCTTCAACACCCCGGT 2326  
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2567 GCATCGGCTACAGTCAACGCTGCTCCGAGGCTGAAAGGCGAGCCCGAGCATCTTC 1154  
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2687 ACCAGGCGCTGTGAGTGGCGAGGACTTGAAGTGGCGAGACCGCGCCAGATTCG 1274  
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2747 AGGAGCTGGAGAGCACTGCTGCTGGGCTTCAACACCCCGAGAGAGACCAAGA 1334  
1334 AGGAGCTGGAGAGCACTGCTGCTGGGCTTCAACACCCCGAGAGAGACCAAGA 1393

2807 AGAGCGCGCGCTTCTGCGCATCGAGCTGACACCCGAGCAAGTGAACCGTGCAGCCCATG 2866  
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Db 4421 CCTCAAGAACCTGAAGACCGGCAAGTACGCCAAGTCCGACACCGCCACCAACGAGC 4480  
Qy 1754 TGAAGCAGCTGACCCGAGGCGCTGCAAGATGCGCCATGAGAGCATCTGGAGCA 1813  
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Qy 1814 AGACCCCAAGTTCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1873  
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Qy 1874 ACTGCGAGGCGCCTGAGATCCCGAGTGGAGTTCCTGTAACACCCCTGCTGTAAC 1933  
Db 4601 ACTGCGAGGCGCCTGAGATCCCGAGTGGAGTTCCTGTAACACCCCTGCTGTAAC 4660  
Qy 1934 TGTGTGACCACTGAG 1993  
Db 4661 TGTGTGACCACTGAG 4720  
Qy 1994 CCGCCAAACCGGAGACCAAGATCGGAGAGCGGCTACGCTGACCGACCGGCGCGGAGA 2053  
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Qy 2234 TCATCAGAGGCGGAGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2293  
Db 4961 TCATCAGAGGCGGAGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 5020  
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Db 5021 AGAGAGAGATCGAAG 5080  
Qy 2354 TCAGATGCGGAGATCGATCTACAGATACATGAGACGATCTGATGAGAGAGAGAGAG 2413  
Db 5081 TCAGATGCGGAGATCGATCTACAGATACATGAGACGATCTGATGAGAGAGAGAGAG 5140  
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Db 5141 CTAGATGATTAAGAGCTTCCCGGAGCTAGACCGGT 5178

RESULT 9  
US-10-190-305A-82  
Sequence 82, Application US/10190305A  
Publication No. US20030198621A1  
GENERAL INFORMATION:  
APPLICANT: ZUR MEGEDE, Jan  
APPLICANT: BARNETT, Susan  
APPLICANT: LIAN, Ying  
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR  
TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
FILE REFERENCE: 2302-18702 / 18702.002  
CURRENT APPLICATION NUMBER: US/10190,305A  
CURRENT FILING DATE: 2002-07-05  
NUMBER OF SEQ ID NOS: 93  
SOFTWARE: Patent Ver. 2.0  
SEQ ID NO 82  
LENGTH: 5184  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence:  
OTHER INFORMATION: TacRevnefagCpPolina C

US-10-190-305A-82  
Query Match 99.1%; Score 2434.8; DB 6; Length 5184;  
Best Local Similarity 99.9%; Pred. No. 0;  
Matches 2436; Conservative 0; Mismatches 2; Indels 0; Gaps 0;  
Qy 14 TGGCGAGGCGCATGAGCGAGCGAGCGAGCGAGCGAGCGAGCGAGCGAGCGAGCGAG 73  
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Qy 134 ACTGCG 193  
Db 2861 ACTGCG 2920  
Qy 194 AGGACTGACCGAGCGCGCGAGCGCACTTCTTCCGCGAGAGAGAGAGAGAGAGAGAGAG 253  
Db 2921 AGGACTGACCGAGCGCGCGAGCGCGCACTTCTTCCGCGAGAGAGAGAGAGAGAGAGAG 2980  
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Qy 494 GGAAGTGAAGGCGCAAGATGATCGGCGAGCGAGCGAGCGAGCGAGCGAGCGAGCGAG 553  
Db 3221 GGAAGTGAAGGCGCAAGATGATCGGCGAGCGAGCGAGCGAGCGAGCGAGCGAGCGAG 3280  
Qy 554 ACCAGATCTGATGAGATCTGCGCGAGAGAGCGCATTCGAGCAACCGTCTGATGAGCGCG 613  
Db 3281 ACCAGATCTGATGAGATCTGCGCGAGAGAGCGCATTCGAGCAACCGTCTGATGAGCGCG 3340  
Qy 614 CCCCCGTGAACATCATCGGCGCGAGCATCTGACCCAGCTGAGCTGAGCACTTGAACCTTC 673  
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Db 3581 TGGCGCATCAAG 3640  
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Db 3641 ACAAGCGACCGAG 3700  
Qy 974 AGAAG 1033  
Db 3701 AGAAG 3760



QY	301	AGCGCGAGCTGCGAGGTGCGGGGAGCAACCCCGGACAGCGAGCGCGCGAGCGCGAG	360
Db	301	AGCGCGAGCTGCGAGGTGCGGGGAGCAACCCCGGACAGCGAGCGCGAGCGCGAG	360
QY	361	GGCAACCTTGAACTTCCCCAGATCAACCTGTGGACGCGCCCTGTGGATCAAGGTG	420
Db	361	GGCAACCTTGAACTTCCCCAGATCAACCTGTGGACGCGCCCTGTGGATCAAGGTG	420
QY	421	GGCGGCGCATTCAGAGAGGCGCTGTGGAACACCGGCGCGGACGACACCGTGTGGAAGAG	480
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QY	481	ATGAGCGCTGCGCGGCAATGAGAGAGGCGCTGTGGAACACCGGCGCGGACGACACCGTGTGGAAGAG	540
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Db	841	AACACCCCCGTGTTGCGCATCAAGAGAGAGACACAGCATGGCGGCAAGCTGTGTGAC	900
QY	901	TTTCGGCGAGCTGGAACAAACGCGACCCGAGGACTTTGGGAGGTGACGTGGGATCCCCAC	960
Db	901	TTTCGGCGAGCTGGAACAAACGCGACCCGAGGACTTTGGGAGGTGACGTGGGATCCCCAC	960
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QY	1021	AGCGTGGCGCTTGAACAGAGACTTCCGGAAGTACACCGCTTCAACATCCACGACATCAAC	1080
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QY	1141	CCGACGATCTTCCAGAGCAGATGACCAAGATCTCTGAGGCCCTTCCGCGCCCGACATCCC	1200
Db	1141	CCGACGATCTTCCAGAGCAGATGACCAAGATCTCTGAGGCCCTTCCGCGCCCGACATCCC	1200
QY	1201	GAGATTCGATCTTACCAAGGCGCCCTGTGACGTGGGCGACGACTGGGACAGATCGGCGACGAC	1260
Db	1201	GAGATTCGATCTTACCAAGGCGCCCTGTGACGTGGGCGACGACTGGGACAGATCGGCGACGAC	1260
QY	1261	CGCGCCAAAGATCGAGAGCTGGCGACGACCTTGTGCGCTGGGCTTTCACCAACCCCGAC	1320
Db	1261	CGCGCCAAAGATCGAGAGCTGGCGACGACCTTGTGCGCTGGGCTTTCACCAACCCCGAC	1320
QY	1321	AAGAAAGACACAGAAAGAGCGCCCTTCTCTGCGCCAT-----CGAGCTGACACCCGACAG	1374
Db	1321	AAGAAAGACACAGAAAGAGCGCCCTTCTCTGCGCCAT-----CGAGCTGACACCCGACAG	1380

QY	1375	TGAGACGGTGGAGGCCATCCAGAGCTGGCCCGAGAAAGAGAGCTGGACCGTGAACGACATCCAG	1434
Db	1381	TGAGACGGTGGAGGCCATCCAGAGCTGGCCCGAGAAAGAGAGCTGGACCGTGAACGACATCCAG	1440
QY	1435	AAAGCTGGTGGGCAAGCTGAACTGGGCGAGCCAGATCTTACCCCGAGATCAAGATGGCGCCAG	1494
Db	1441	AAAGCTGGTGGGCAAGCTGAACTGGGCGAGCCAGATCTTACCCCGAGATCAAGATGGCGCCAG	1500
QY	1495	CTGTGGCAAGCTGTGGCGCGCGCGCCAAAGGCCCTGACCGGACATTCGTGGCCCTTGACCGAAGAG	1554
Db	1501	CTGTGGCAAGCTGTGGCGCGCGCGCCAAAGGCCCTGACCGGACATTCGTGGCCCTTGACCGAAGAG	1560
QY	1555	GCCGAGCTGGAGCTGGCGCGGAGAAACCGGAGATCTCTGGCGAGCGCCGTGGACCGGCGTGTAC	1614
Db	1561	GCCGAGCTGGAGCTGGCGCGGAGAAACCGGAGATCTCTGGCGAGCGCCGTGGACCGGCGTGTAC	1620
QY	1615	TACGACCCCGAGCAAGAGACTGTGTGGCCGAGATCCAGAAAGCAAGGCGCCACGACCAATGGAC	1674
Db	1621	TACGACCCCGAGCAAGAGACTGTGTGGCCGAGATCCAGAAAGCAAGGCGCCACGACCAATGGAC	1680
QY	1675	TACGAGATCTAACGAGAGCCCTTCAAGAACTGTGAAGAACGGGCAAGTACCGCAAGATGCGC	1734
Db	1681	TACGAGATCTAACGAGAGCCCTTCAAGAACTGTGAAGAACGGGCAAGTACCGCAAGATGCGC	1740
QY	1735	ACCGCCCAACCAACGACGTGAAGCAGCTGACCGAGGCCGTGCAGAAAGATGCCATGAG	1794
Db	1741	ACCGCCCAACCAACGACGTGAAGCAGCTGACCGAGGCCGTGCAGAAAGATGCCATGAG	1800
QY	1795	AGCATCCGTGATCTGGGGCGAAGACCCCGCAAGTCCCGCGTGGCCATCCGAAGAGAGACCTGG	1854
Db	1801	AGCATCCGTGATCTGGGGCGAAGACCCCGCAAGTCCCGCGTGGCCATCCGAAGAGAGACCTGG	1860
QY	1855	GAGACCTGTGTGACCCGACTACTGTGCAGAGCCACCTGATGCCCGAGTGGAGTTCTGTGAAC	1914
Db	1861	GAGACCTGTGTGACCCGACTACTGTGTACCTGGCAAGCCACCTGATGCCCGAGTGGAGTTCTGTGAAC	1920
QY	1915	ACCCCCCCTGTGTGAAGCTGTGTGTACGAGCTGGAGAAAGAGGCCATCATCTGGCGCCGAG	1974
Db	1921	ACCCCCCCTGTGTGAAGCTGTGTGTACGAGCTGGAGAAAGAGGCCATCATCTGGCGCCGAG	1980
QY	1975	ACCTTCTACGAGGACCGGCGCCGCAACCGGAGACCAAGATCCGGCAAGGCCGCGCTTACGTT	2034
Db	1981	ACCTTCTACGAGGACCGGCGCCGCAACCGGAGACCAAGATCCGGCAAGGCCGCGCTTACGTT	2040
QY	2035	ACCGACCGGGCGCGGCAAGAGATGTTGAGGCTTGACCGAGACCAACCAACCAAGAGACCGAG	2094
Db	2041	ACCGACCGGGCGCGGCAAGAGATGTTGAGGCTTGACCGAGACCAACCAACCAAGAGACCGAG	2100
QY	2095	CTGCAAGCCATCCGACGTGGCCCTCTGACGAGACGAGCGGACGAGAGTGAACATCTGTGACCGAC	2154
Db	2101	CTGCAAGCCATCCGACGTGGCCCTCTGACGAGACGAGCGGACGAGAGTGAACATCTGTGACCGAC	2160
QY	2155	AGCCAGTACGCGCTGTGGGATCATCCAGGCCCGACCCGACCAAGAGCAGAGCGAGCTGGTG	2214
Db	2161	AGCCAGTACGCGCTGTGGGATCATCCAGGCCCGACCCGACCAAGAGCAGAGCGAGCTGGTG	2220
QY	2215	AAACCAATCATTCGACGACCTGTATTAAGAAAGAAAGTGTATCTTGAGCTGGTGTCCCGCC	2274
Db	2221	AAACCAATCATTCGACGACCTGTATTAAGAAAGAAAGTGTATCTTGAGCTGGTGTCCCGCC	2280
QY	2275	CACAAAGGACATCCGCGGCAACGACCAATCGACGAGCTGGTGAACAGAGGCATCCGCAAG	2334
Db	2281	CACAAAGGACATCCGCGGCAACGACCAATCGACGAGCTGGTGAACAGAGGCATCCGCAAG	2340
QY	2335	GTGCTGTTCTTGAACGGGATCGATGGCGGACCTGTGTCTTACCAAGTACATGACGACCTGG	2394
Db	2341	GTGCTGTTCTTGAACGGGATCGATGGCGGACCTGTGTCTTACCAAGTACATGACGACCTGG	2400
QY	2395	TACGTTGGGACGGCGCGCCCTTAAGATCGATTAAAGCTTCCCGGGGCTAAGACCGGT	2451
Db	2401	TACGTTGGGACGGCGCGCCCTTAAGATCGATTAAAGCTTCCCGGGGCTAAGACCGGT	2457







OY	1795	GGATTCGTGATCTGGGGGCAACACCCCAAGTTCCGCTCGGCCCATCTCAAGAAAGAGACCTGG	1854
Db	1801	AGCATCTGATCTGGGGGCAAGCCCAAGTTCCGCTCGGCCCATCTCAAGAAAGAGACTGG	1860
OY	1855	GAGACTTGATGAGACCGACTACTGGCAGGCGCACTTGATCCCCGAGTGGAGTTGATGAAC	1914
Db	1861	GAGACTTGATGAGACCGACTACTGGCAGGCGCACTTGATCCCCGAGTGGAGTTGATGAAC	1920
OY	1915	ACCCCCCCCCCTGGTGAACCTGTGGTACCACTGGAGAAAGAGCCCATATCTGGGGCCGAG	1974
Db	1921	ACCCCCCCCCCTGGTGAACCTGTGGTACCACTGGAGAAAGAGCCCATATCGGGCCGAG	1980
OY	1975	ACCTTCTACGTGAGCGGGCGCGCCCAACCGGAGAGCCAGATTCGGCAAGCGGCTTACGTG	2034
Db	1981	ACCTTCTACGTGAGCGGGCGCGCCCAACCGGAGAGCCAGATTCGGCAAGCGGCTTACGTG	2040
OY	2035	ACCGACCGGGGCGCGGAGAGATCTGTGAGCTTGACCGAGCCACCAACCAAGAACCGAG	2094
Db	2041	ACCGACCGGGGCGCGGAGAGATCTGTGAGCTTGACCGAGCCACCAACCAAGAACCGAG	2100
OY	2095	CTGCAGGCGCATCTCAGCTGGCCCTTGAGAGACAGCGGCAACGAGGTGAACATGTGATCCGAC	2154
Db	2101	CTGCAGGCGCATCTCAGCTGGCCCTTGAGAGACAGCGGCAACGAGGTGAACATGTGATCCGAC	2160
OY	2155	AGCCAGTAGCGCCCTGGGAGCATCCAGGCGCCGACCCGACAAGAGCGAGCGACTGGTG	2214
Db	2161	AGCCAGTAGCGCCCTGGGAGCATCCAGGCGCCGACCCGACAAGAGCGAGCGACTGGTG	2220
OY	2215	AACCATGATCATCGAGCAGCTGATCAAGAAAGAGAAAGTGTACCTGAGCTGGGTGCCGCC	2274
Db	2221	AACCATGATCATCGAGCAGCTGATCAAGAAAGAGAAAGTGTACCTGAGCTGGGTGCCGCC	2280
OY	2275	CACAAAGGCGATCGGGCGGCAACGAGCAGATCCACAAGCTGGTAGCAAGGCAATCCGCAAG	2334
Db	2281	CACAAAGGCGATCGGGCGGCAACGAGCAGATCCACAAGCTGGTAGCAAGGCAATCCGCAAG	2340
OY	2335	GTGCTGTTCTTGAGCGGAGCATCGATGGCGGACTCGTATCTACCACTACATGAGCGACTGG	2394
Db	2341	GTGCTGTTCTTGAGCGGAGCATCGATGGCGGACTCGTATCTACCACTACATGAGCGACTGG	2400
OY	2395	TACGTGGGCAAGCGGGCGGCTTGATGATTCGATTAAAGCTTCCCGGGGCTTAGCACCGGT	2451
Db	2401	TACGTGGGCAAGCGGGCGGCTTGATGATTCGATTAAAGCTTCCCGGGGCTTAGCACCGGT	2457

RESULT 12  
US-09-899-575-30

US-09-899-575-30  
; Sequence 30, Application US/09899575  
; Publication No. US20030223961A1

; GENERAL INFORMATION:

1 APPLICANT: Zur Megede, Jan  
2 APPLICANT: Barnett, Susan W.  
3 APPLICANT: Egnelbrecht, Susan  
4 APPLICANT: van Rensburg, Esiretilla Janse  
5 TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
6 TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
7 FILE REFERENCE: PP01631.102  
8 CURRENT APPLICATION NUMBER: US/09/899,575  
9 CURRENT FILING DATE: 2001-07-05  
10 PRIOR APPLICATION NUMBER: 09/475,704  
11 PRIOR FILING DATE: 1999-12-30  
12 NUMBER OF SEQ ID NOS: 135  
13 SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 30
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TYPE: DNA

ORGANISM: Artificial Sequence

OTHER INFORMATION: Description of Artificial Sequence: PR975(+)  

US-09-899-575-30

### Query Match

98.3%; Score 2415.4; DB 3; Length 2469;

Best Local Similarity 99.3%; Pred. No. 0;  
Matches 2451; Conservative 0; Mismatches 6; Indels 12; Gaps 2;

QY	1	GTGCAAGCCACATATGCGTCGAGGCCATATAGCCAGGCCACCAAGCCGCAACATCTGATATGAC	60
Db	1	GTCAACGCCACCAATGCGCCGAGGCCATAGAGCCAGGCCACCAAGCCGCAACATCTGATATGAC	60
QY	61	CGCAGCAACTTCAGAGGGGCCCCCAAGCGCATCATCAAGTCTTCACTCGGCCAAGAGAGGC	120
Db	61	CGCAGCAACTTCAGAGGGGCCCCCAAGCGCATCATCAAGTCTTCAACTCGGCCAAGAGAGGC	120
QY	121	CACATCGCGCGCAACTGCGCGGCCCGCCCGCAAGAGGGCTGCTGGAAGTGCCTGGCAAGAG	180
Db	121	CACATCGCGCGCAACTGCGCGGCCCGCCCGCAAGAGGGCTGCTGGAAGTGCCTGGCAAGAG	180
QY	181	GGCCACCGAGATGAAGGACTGCGACCGAGCGCCCAACTTCTTCGCGGAGGACTGGCC	240
Db	181	GGCCACCGAGATGAAGGACTGCGACCGAGCGCCCAACTTCTTCGCGGAGGACTGGCC	240
QY	241	TTCCGCCAGGCGCAAGGCCCGCGAGTTCCCGCAGCAGAGCAACCGCGCCAAAGCCCAACC	300
Db	241	TTCCGCCAGGCGCAAGGCCCGCGAGTTCCCGCAGCAGAGCAACCGCGCCAAAGCCCAACC	300
QY	301	AGCGCGCAGCTGCAAGTGTGCGCGGCGCAACCCCGCAGCGAGGCGCGCGCGCGCAG	360
Db	301	AGCGCGCAGCTGCAAGTGTGCGCGGCGCAACCCCGCAGCGAGGCGCGCGCGCGCAG	360
QY	361	GGCAACCTGAACTTCCCGCAGATCACCTGTGCGAGCGCCCGCTGTGAGCATCAAGTG	420
Db	361	GGCAACCTGAACTTCCCGCAGATCACCTGTGTGCGAGCGCCCGCTGTGAGCATCAAGTG	420
QY	421	GGCGCGCAGATCAAGAGAGCGCTGTCTGCAACCGCGCGCCCAACACACCTGTGTGGAAGAG	480
Db	421	GGCGCGCAGATCAAGAGAGCGCTGTCTGCAACCGCGCGCCCAACACACCTGTGTGGAAGAG	480
QY	481	ATGAGCGCTCGCGCGCAAGTGAAGCCCAAGATGATCGCGCGCATCGCGCTTATCAAG	540
Db	481	ATGAGCGCTCGCGCGCAAGTGAAGCCCAAGATGATCGCGCGCATCGCGCTTATCAAG	540
QY	541	GTCGCGCAGTACGACCAAGATCTGATCGAGATCTGCGGCAAGAGGCCATTCGCGACCGTG	600
Db	541	GTCGCGCAGTACGACCAAGATCTGATCGAGATCTGCGGCAAGAGGCCATTCGCGACCGTG	600
QY	601	CTGATTCGCGGCCCAACCCCGCTGAAATATATGCGCGCGCAACATGTCGACCCGACTGCGCTGC	660
Db	601	CTGATTCGCGGCCCAACCCCGCTGAAATATATGCGCGCGCAACATGTCGACCCGACTGCGCTGC	660
QY	661	ACCGTGAATCTCCCATACAGCCCATCGAGACCGTGCCTCGTGAAGCTGAAGCCCGGATG	720
Db	661	ACCGTGAATCTCCCATACAGCCCATCGAGACCGTGCCTCGTGAAGCTGAAGCCCGGATG	720
QY	721	GACGCGCCCAAGGTGAAGCACTGTGCCCTCTGACCGAGAGAAAGATCAAGGCCCTTACCGGC	780
Db	721	GACGCGCCCAAGGTGAAGCACTGTGTGCCCTCTGACCGAGAGAAAGATCAAGGCCCTTACCGGC	780
QY	781	ATTCGCGAGGAGATGAGAGAGAGAGGCGAAGATCACCAAGATCGGCCCGCGAAGACCCCTAC	840
Db	781	ATTCGCGAGGAGATGAGAGAGAGAGGCGAAGATCACCAAGATCGGCCCGCGAAGACCCCTAC	840
QY	841	AACACCCCGCGTTCGCGCATCAAGAGAGAGACGACCAAGGTGCGCAAGCTGTGTGAC	900
Db	841	AACACCCCGCGTTCGCGCATCAAGAGAGAGACGACCAAGGTGCGCGCAAGCTGTGTGAC	900
QY	901	TTTCGCGAGCTGAAACAAGCGACCCAGGACTTCTGGAAGGTGCGAGCTGTGGGCAATCCCGAC	960
Db	901	TTTCGCGAGCTGAAACAAGCGACCCAGGACTTCTGGAAGGTGCGAGCTGTGGGCAATCCCGAC	960
QY	961	CCCGCGGCGCTGAAAGAGAGAAAGAGCGCTGACCGTGTGGAAGGTGTGAGCGCTTACTTC	1020
Db	961	CCCGCGGCGCTGAAAGAGAGAAAGAGCGGTGACCGTGTGGAAGGTGTGAGCGCTTACTTC	1020
QY	1021	AGCGTGCCTTGAACGAGGACTTCCGCGAGTACCGGCTTCAACCATCTCCGACATCAAC	1080

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Db      1021 AGCGTCCCTGGAAGAGGATCTTCGCAAGTACCGCTTCAACATCCCAAGCATCAAC 1080
Qy      1081 AACGAGACCCCGGATCCGCTACCAAGTACCAAGTGTGCCCCAGGCGCTGAAGGCGAC 1140
Db      1081 AACGAGACCCCGGATCCGCTACCAAGTACCAAGTGTGCCCCAGGCGCTGAAGGCGAC 1140
Qy      1141 CCCAGCATCTTCAGAGAGCATGACCAAGATCTTGAGACCTTCCGCGCCCGCAACCCC 1200
Db      1141 CCCAGCATCTTCAGAGAGCATGACCAAGATCTTGAGACCTTCCGCGCCCGCAACCCC 1200
Qy      1201 GAGATCTGATCTCA-----GGCCCCCTGTACGTGGGAGGAGCCCTGAGATCGGC 1254
Db      1201 GAGATCTGATCTCA-----GGCCCCCTGTACGTGGGAGGAGCCCTGAGATCGGC 1260
Qy      1255 CAGCACCAGGCAAGATCGAGAGAGCTGCGCAAGCACTCTGCGCTGGGGCTTCAACACC 1314
Db      1261 CAGCACCAGGCAAGATCGAGAGAGCTGCGCAAGCACTCTGCGCTGGGGCTTCAACACC 1320
Qy      1315 CCCGACAAAGAGCAGAGAGAGGAGCCCTTCTGCTCCAT-----CGAGCTGACCCC 1368
Db      1321 CCCGACAAAGAGCAGAGAGAGGAGCCCTTCTGCTCCATCGAGCTGACCCCCC 1380
Qy      1369 GACAACTGAGCCGTGACGCCCATCGAGCTGCCGAGAGAGAGAGCTGAGCCCTGAACGAC 1428
Db      1381 GACAACTGAGCCGTGACGCCCATCGAGCTGCCGAGAGAGAGAGCTGAGCCCTGAACGAC 1440
Qy      1429 ATCCAGAGCTGTGGGCAAGCTGAACTGGGCGAGCCAGCACTAACCCCGCATCAAGTG 1488
Db      1441 ATCCAGAGCTGTGGGCAAGCTGAACTGGGCGAGCCAGCACTAACCCCGCATCAAGTG 1500
Qy      1489 CGCCAGCTGTGCAAGCTGTGCGCGCGCGCCAGGCGCTGACCACTGTGCTCCCTGACC 1548
Db      1501 CGCCAGCTGTGCAAGCTGTGCGCGCGCGCCAGGCGCTGACCACTGTGCTCCCTGACC 1560
Qy      1549 GAGAGGCGCGAGCTGAGCTGTGCGCGAGAACCGGAGATCTTGGCGGAGCCCTGCGACGCG 1608
Db      1561 GAGAGGCGCGAGCTGAGCTGTGCGCGAGAACCGGAGATCTTGGCGGAGCCCTGCGACGCG 1620
Qy      1609 GTGTACTACGACCCCGAGAGAGAGCTGTGGGCGAGATCTCAGAGAGGAGCGACAGCAG 1668
Db      1621 GTGTACTACGACCCCGAGAGAGAGCTGTGGGCGAGATCTCAGAGAGGAGCGACAGCAG 1680
Qy      1669 TGGACCTACAGATCTTACAGAGAGCCCTTCAAGAACCTTGAAGACCGGCAAGTACGCCAAG 1728
Db      1681 TGGACCTACAGATCTTACAGAGAGCCCTTCAAGAACCTTGAAGAACCGGCAAGTACGCCAAG 1740
Qy      1729 ATGCGACCCGCGCACACCAACGAGTGAAGCACTGACCAAGGCGCTGCGAGAGATGCGC 1788
Db      1741 ATGCGACCCGCGCACACCAACGAGTGAAGCACTGACCAAGGCGCTGCGAGAGATGCGC 1800
Qy      1789 ATGAGAGCATCTGATCTGGGGGAGAGACCCCGCAAGTTCCGCGCCCATCCAGAGAGAG 1848
Db      1801 ATGAGAGCATCTGATCTGGGGGAGAGACCCCGCAAGTTCCGCGCCCATCCAGAGAGAG 1860
Qy      1849 ACCGAGGAGCATGTGTGAGACCGACTACTGTGAGGCGACCTGTGATCCCGAGTGGAGATT 1908
Db      1861 ACCGAGGAGCATGTGTGAGACCGACTACTGTGAGGCGACCTGTGATCCCGAGTGGAGATT 1920
Qy      1909 GTGAACAACCCCGCTGTGTGAAGCTGTGTGACAGCTGAGAGAGAGAGCCCATATCGGC 1968
Db      1921 GTGAACAACCCCGCTGTGTGAAGCTGTGTGACAGCTGAGAGAGAGAGCCCATATCGGC 1980
Qy      1969 GCCGAGACCTTCTACGTGAGAGCGCGCGCGCACCCGCGAGACCAAGTCTGGGAAAGCGCGC 2028
Db      1981 GCCGAGACCTTCTACGTGAGAGCGCGCGCGCACCCGCGAGACCAAGTCTGGGAAAGCGCGC 2040
Qy      2029 TAGGTGACCGAGCGGGGCGCGGAGAGATCTGTAGCTGAGCCGAGACCAACCAAGAG 2088
Db      2041 TAGGTGACCGAGCGGGGCGCGGAGAGATCTGTAGCTGAGCCGAGACCAACCAAGAG 2100
Qy      2089 ACCGAGCTGAGGCGCATCAAGCTGCGCTTGAAGAGCAGCGGCAAGGAGTGAACATCGTG 2148
Db      2101 ACCGAGCTGAGGCGCATCAAGCTGCGCTTGAAGAGCAGCGGCAAGGAGTGAACATCGTG 2160

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Qy      2149 ACCGAGCGCATGAGCCCTGGGATCATTCAGAGCGCCAGCCGACAAAGAGCAGAGCGAG 2208
Db      2161 ACCGAGCGCATGAGCCCTGGGATCATTCAGAGCGCCAGCCGACAAAGAGCAGAGCGAG 2220
Qy      2209 CTGTGAGAACCATGATCATGAGAGCATGATCAAGAGAGAGAGTGTACTGTAGCTGGTG 2268
Db      2221 CTGTGAGAACCATGATCATGAGAGCATGATCAAGAGAGAGAGTGTACTGTAGCTGGTG 2280
Qy      2269 CCGGCGCAAGAGGATGCGCGGCAACGAGATTCAGACAGCTGTGAGCAAGGCGATC 2328
Db      2281 CCGGCGCAAGAGGATGCGCGGCAACGAGATTCAGACAGCTGTGAGCAAGGCGATC 2340
Qy      2329 CCGAGAGCTGTCTTCTGAGCGGCAATGAGTGGCGGATGTGATCTACAGTACATGAGC 2388
Db      2341 CCGAGAGCTGTCTTCTGAGCGGCAATGAGTGGCGGATGTGATCTACAGTACATGAGC 2400
Qy      2389 GACCTGACGTGGGAGCGCGCGCTAGATGATTAAGATTCCCGGGCTAGCACCC 2448
Db      2401 GACCTGACGTGGGAGCGCGCGCTAGATGATTAAGATTCCCGGGCTAGCACCC 2460
Qy      2449 GGTGAATTG 2457
Db      2461 GGTGAATTG 2469

RESULT 13
US-10-190-435-13
; Sequence 13, Application US/10190435
; Publication No. US20030143248A1
;
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Estrelita J.
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
; LENGTH: 3531
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: GagPolmut_C
US-10-190-435-13

Query Match          97.9%; Score 2404.4; DB 6; Length 3531;
Best Local Similarity 99.1%; Pred. No. 0;
Matches 2417; Conservative 0; Mismatches 21; Indels 0; Gaps 0;

Qy      14 TGGCCGAGGCGCATGAGCGAGGCAACGAGCCCAACATCTGTAGTACGCGCAAGCAATTCA 73
Db      1088 TGGCCGAGGCGCATGAGCGAGGCAACGAGCCCAACATCTGTAGTACGAGAGAGCAATTAAA 1147
Qy      74 AGGGCCCCAGAGCGCATATCAAGTCTTCAACTGGCGCAAGAGGGGCGACATGCGCGCA 133
Db      1148 AGGGCCCCAGAGCGCATATCAAGTCTTCAACTGGCGCAAGAGGGGCGACATGCGCGCA 1207
Qy      134 ACTGCGCGCGCCCCCGCAAGAGGAGTGTGAGAGTGGCGCAAGAGAGGCGCACAGATGA 193
Db      1208 ACTGCGCGCGCCCCCGCAAGAGGAGTGTGAGAGTGGCGCAAGAGAGGCGCACAGATGA 1267
Qy      194 AGGACTGACAGAGCGGCGAGGCAACTTCTTCCGCGAGAGCTTGGCTTCCCGAGGGCA 253
Db      1268 AGGACTGACAGAGCGGCGAGGCAACTTCTTCCGCGAGAGCTTGGCTTCCCGAGGGCA 1327
Qy      254 AGGCGCGGAGTTCCCGAGAGAGAGAGAGAGCGCGCAAGGCGCGACAGCGCGAGCTGC 313

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Db 1328 AGGCCCCGAGTTCCTCCAGCGAGAGAAACCGCGCCAAACAGCCCCAACAAGCCCGAGACTGC 1387  
Oy 314 AGTGTGGGGGAGCAACCCCCGAGAGAGCGCGGCGCGAGCGCAAGGGCACTTGAACT 373  
Db 1388 AGGTGGCGGAGCAACCCCCGAGAGAGCGCGGCGCGAGCGCAAGGGCACTTGAACT 1447  
Oy 374 TCCCCAGATCAACCTGTGGCAGCGCCCCCTGTGAGCATCAAGGTGGCGGCGAGATCA 433  
Db 1448 TCCCCAGATCAACCTGTGGCAGCGCCCCCTGTGAGCATCAAGGTGGCGGCGAGATCA 1507  
Oy 434 AGAGGCGCTGCTGAGCAACCGCGCGCGAGCAACCGTGTGAGAGAGATGAGCTGCCCCG 493  
Db 1508 AGAGGCGCTGCTGAGCAACCGCGCGCGAGCAACCGTGTGAGAGAGATGAGCTGCCCCG 1567  
Oy 494 GGAAGTGAAGGCGCAAGATGATCGGCGGATCGGCGGCTTCATCAAGGTGGCGAGTAG 553  
Db 1568 GGAAGTGAAGGCGCAAGATGATCGGCGGATCGGCGGCTTCATCAAGGTGGCGAGTAG 1627  
Oy 554 ACCAGATCTGATTCGAGATCTGCGGCAAGAGGCGCATCGGCAACCGTGTGATCGGCGCA 613  
Db 1628 ACCAGATCTGATTCGAGATCTGCGGCAAGAGGCGCATCGGCAACCGTGTGATCGGCGCA 1687  
Oy 614 CCCCCGTGAACATCATCGGCGCGACATGCTGAACCAAGTGGCTGCAACCTGAACTTCC 673  
Db 1688 CCCCCGTGAACATCATCGGCGCGACATGCTGAACCAAGTGGCTGCAACCTGAACTTCC 1747  
Oy 674 CCATCAGCCCCCATCGAGACCGTGGCGGTGAAGCTGAAGCGCGGCAATGAGCGGCCCAAG 733  
Db 1748 CCATCAGCCCCCATCGAGACCGTGGCGGTGAAGCTGAAGCGCGGCAATGAGCGGCCCAAG 1807  
Oy 734 TGAAGCATGTGCCCCCTGACCGAGAGAAAGATCAAGGCGCTGACCGGCATCTGCGAGAGA 793  
Db 1808 TGAAGCATGTGCCCCCTGACCGAGAGAAAGATCAAGGCGCTGACCGGCATCTGCGAGAGA 1867  
Oy 794 TGAAGAGAGAGGAGAGATCAACAGATCGGCGCGAGAAACCCCTTCAACAACCCCGTGT 853  
Db 1868 TGAAGAGAGAGGAGAGATCAACAGATCGGCGCGAGAAACCCCTTCAACAACCCCGTGT 1927  
Oy 854 TGGCCATCAAGAAAGAGAGACAGCAACAGTGGCGAAGCTGGTGAAGCTTCCCGAGCTGA 913  
Db 1928 TGGCCATCAAGAAAGAGAGACAGCAACAGTGGCGAAGCTGGTGAAGCTTCCCGAGCTGA 1987  
Oy 914 ACAAGGCAACCGAGACTTCTGGAGAGTCAAGCTGGGCAATCCGCCACCGCGCGGCTGA 973  
Db 1988 ACAAGGCAACCGAGACTTCTGGAGAGTCAAGCTGGGCAATCCGCCACCGCGCGGCTGA 2047  
Oy 974 AGAAGAGAGAGGCTGACCGTGTGAGCGTGGCGAACCGCTTACTTCAAGCTGCCCCCTGG 1033  
Db 2048 AGAAGAGAGAGGCTGACCGTGTGAGCGTGGCGAACCGCTTACTTCAAGCTGCCCCCTGG 2107  
Oy 1034 AGAGGACTTCCGCAAGTACACCGGCTTACCAATCCCGAGCATCAACAAGAGAGAGAGAG 1093  
Db 2108 AGAGGACTTCCGCAAGTACACCGGCTTACCAATCCCGAGCATCAACAAGAGAGAGAGAG 2167  
Oy 1094 GCATCCGCTACAGTACAAAGTGTGCTGCCCAAGGCTGGAAGGCAAGAGAGAGAGAGAG 1153  
Db 2168 GCATCCGCTACAGTACAAAGTGTGCTGCCCAAGGCTGGAAGGCAAGAGAGAGAGAGAG 2227  
Oy 1154 AGAGCAGATGACCAAGATCTGAGAGCCCTTCCGCGCGCGCAACCCCGAGATGTGATCT 1213  
Db 2228 AGAGCAGATGACCAAGATCTGAGAGCCCTTCCGCGCGCGCAACCCCGAGATGTGATCT 2287  
Oy 1214 ACCAGGCGCGCGTGTGAG 1273  
Db 2288 ACCAGGCGCGCGTGTGAG 2347  
Oy 1274 AGAGGCTGCGAG 1333  
Db 2348 AGAGGCTGCGAG 2407  
Oy 1334 AGAGAGCCCCCTTCTGCTCCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1393  
Db 2408 AGAGAGCCCCCTTCTGCTCCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2467

Oy 1394 AGCTGCCGAG 1453  
Db 2468 AGCTGCCGAG 2527  
Oy 1454 ACTGGGCGAG 1513  
Db 2528 ACTGGGCGAG 2587  
Oy 1514 GGGCGAAGGCGCTGAG 1573  
Db 2588 GGGCGAAGGCGCTGAG 2647  
Oy 1574 AGAACCAGAGATCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1633  
Db 2648 AGAACCAGAGATCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2707  
Oy 1634 TGTGGCGAGATTCAG 1693  
Db 2708 TGTGGCGAGATTCAG 2767  
Oy 1694 CCTTGAAG 1753  
Db 2768 CCTTGAAG 2827  
Oy 1754 TGAAGCAGCTGACCGAGGCGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1813  
Db 2828 TGAAGCAGCTGACCGAGGCGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2887  
Oy 1814 AGAACCAGAGATTCGCGCTGCGCATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1873  
Db 2888 AGAACCAGAGATTCGCGCTGCGCATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2947  
Oy 1874 ACTGGCAGGCGCAGTGAATCCCGAGTGGAGATTTGTGAACACCCCGCGCTGTGAAGC 1933  
Db 2948 ACTGGCAGGCGCAGTGAATCCCGAGTGGAGATTTGTGAACACCCCGCGCTGTGAAGC 3007  
Oy 1934 TGTGTACAGAGCTGAG 1993  
Db 3008 TGTGTACAGAGCTGAG 3067  
Oy 1994 CGGCCAACCGGAG 2053  
Db 3068 CGGCCAACCGGAG 3127  
Oy 2054 AGATGTGAGCTTGAACCGAG 2113  
Db 3128 AGATGTGAGCTTGAACCGAG 3187  
Oy 2114 CCTTCAG 2173  
Db 3188 CCTTCAG 3247  
Oy 2174 TCAATCAGGCGCAGCGCGAG 2233  
Db 3248 TCAATCAGGCGCAGCGCGAG 3307  
Oy 2234 TGAATCAAG 2293  
Db 3308 TGAATCAAG 3367  
Oy 2294 ACAGAGAGATCGAAG 2353  
Db 3368 ACAGAGAGATCGAAG 3427  
Oy 3428 TCGATGGCGGATCGGATCTACAGATCATGAGACGACTGTACGTGGCAGCGCGGCGC 3487  
Db 2414 CTAGATGATTTAAAGCTTCCCGGGCTAGACCGGT 2451  
3488 CTAGATGATTTAAAGCTTCCCGGGCTAGACCGGT 3525

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RESULT 14
US-10-190-435-45
; Sequence 45, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZOR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Estrelita J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT APPLICATION NUMBER: US/10/190.435
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 45
; LENGTH: 2457
; TYPE: DNA
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: Description of Artificial Sequence: p2Poliopt_C
US-10-190-435-45

Query Match      97.8%; Score 2403.4; DB 6; Length 2457;
Best Local Similarity 99.3%; Pred. No. 0;
Matches 2439; Conservative 0; Mismatches 6; Indels 12; Gaps 2;

QY      7  GCCACCATGCGCCGACGATGAGCCAGGCGCACCGCCCAACATCTGATGACGCGAC 66
Db      1  GCCACCATGCGCCGACGATGAGCCAGGCGCACCGCCCAACATCTGATGACGCGAC 60
QY      67  AACTTCAAGGGCCCGACCGCATCATCAAGTCTTCACTGCGGCAAGAGGGCCACATC 126
Db      61  AACTTCAAGGGCCCGACCGCATCATCAAGTCTTCACTGCGGCAAGAGGGCCACATC 120
QY      127  GCCCGCAACTGCGCGCGCCCGCCGCAAGAGGGCTGTGAAAGTGCAGGCAAGAGGGCCAC 186
Db      121  GCCCGCAACTGCGCGCGCCCGCCGCAAGAGGGCTGTGAAAGTGCAGGCAAGAGGGCCAC 180
QY      187  CAGATGAAGAGCTGCGACCGAGCGCCAGGCCCACTTTCTTCCGCGAAGACTTGGCTTCCC 246
Db      181  CAGATGAAGAGCTGCGACCGAGCGCCAGGCCCACTTTCTTCCGCGAAGACTTGGCTTCCC 240
QY      247  CAGGGCAAGGCGCGCGAGTTCCCAAGGAGCAAGAACCGCCCAACAGCCCAAGCGCC 306
Db      241  CAGGGCAAGGCGCGCGAGTTCCCAAGGAGCAAGAACCGCCCAACAGCCCAAGCGCC 300
QY      307  GAGCTGAGGTGCGCGGCGACAAACCCCGCAGCGAGGCGCGCGCGCGCGCGCGCGCG 366
Db      301  GAGCTGAGGTGCGCGGCGACAAACCCCGCAGCGAGGCGCGCGCGCGCGCGCGCGCG 360
QY      367  CTGAATCTTCCCGCAGATCACTCTGTGCGAGCGCCCTGTGTAGCATCAAGTGGCGGC 426
Db      361  CTGAATCTTCCCGCAGATCACTCTGTGCGAGCGCCCTGTGTAGCATCAAGTGGCGGC 420
QY      427  CAGATCAAGAGGCGCTGTGTCGACACCGCGCCCGACGACCTGTGTCGAGAGATGAGC 486
Db      421  CAGATCAAGAGGCGCTGTGTCGACACCGCGCCCGACGACCTGTGTCGAGAGATGAGC 480
QY      487  CTGCGCGGCAAGTGGAGCCCAAGATGATCGGCGGCGCATCGGCGCTTCAATCAAGTGGC 546
Db      481  CTGCGCGGCAAGTGGAGCCCAAGATGATCGGCGGCGCATCGGCGCTTCAATCAAGTGGC 540
QY      547  CAGTACGACAGATCTGATGAGATCTGCGGCAAGAGGCGCATGCGCTGTGATC 606
Db      541  CAGTACGACAGATCTGATGAGATCTGCGGCAAGAGGCGCATGCGCTGTGATC 600
QY      607  GGGCCCAACCCCGTGAACATCATTCGGCGGCAACATGCTGACCTGAGGCTGCACCTG 666
Db      601  GGGCCCAACCCCGTGAACATCATTCGGCGGCAACATGCTGACCTGAGGCTGCACCTG 660
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QY      667  AACTTCCCATGAGCCCATGAGACCGTGCCTGTGAAGCTGAAGCCCGGCAATGAGCGC 726
Db      661  AACTTCCCATGAGCCCATGAGACCGTGCCTGTGAAGCTGAAGCCCGGCAATGAGCGC 720
QY      727  CCCAAGGTGAACAGTGGCCCTGTGACCGAGAGAAATCAAGGCGCTTGAACCGCATCTGC 786
Db      721  CCCAAGGTGAACAGTGGCCCTGTGACCGAGAGAAATCAAGGCGCTTGAACCGCATCTGC 780
QY      787  GAGAGATGAGAGAGAGGCGCAAGATCAACCAAGTGGCGCCGAGAACCCCTTCAACACC 846
Db      781  GAGAGATGAGAGAGAGGCGCAAGATCAACCAAGTGGCGCCGAGAACCCCTTCAACACC 840
QY      847  CCGGTGTGCATCAAGAGAGAGCAGACCACTGAGCGCAAGTGTGACTTCCG 906
Db      841  CCGGTGTGCATCAAGAGAGAGCAGACCACTGAGCGCAAGTGTGACTTCCG 900
QY      907  GAGCTGAACAGGCGCACCGAGACTTCTGGAGGTGCACTGGGCTATCCCGACCCCGCC 966
Db      901  GAGCTGAACAGGCGCACCGAGACTTCTGGAGGTGCACTGGGCTATCCCGACCCCGCC 960
QY      967  GGCCTGAAGAGAGAGAGCGTGAACCGTGTGAGAGTGGGCGACCGCTTCAAGCTG 1026
Db      961  GGCCTGAAGAGAGAGAGCGTGAACCGTGTGAGAGTGGGCGACCGCTTCAAGCTG 1020
QY      1027  CCGCTGAGAGAGACTTCCGCAAGTACACCGCTTCAACATCCCGACATCAACAGAG 1086
Db      1021  CCGCTGAGAGAGACTTCCGCAAGTACACCGCTTCAACATCCCGACATCAACAGAG 1080
QY      1087  ACCCGCGCATCCGCTACAGATCAACAGTGTGCGCCGAGGCTGAAGGGGAGCGCCAGC 1146
Db      1081  ACCCGCGCATCCGCTACAGATCAACAGTGTGCGCCGAGGCTGAAGGGGAGCGCCAGC 1140
QY      1147  ATCTTCAAGAGCAGATGACCAAGATCTGAGAGCTTCCGCGCGCCGCAACCCCGATC 1206
Db      1141  ATCTTCAAGAGCAGATGACCAAGATCTGAGAGCTTCCGCGCGCCGCAACCCCGATC 1200
QY      1207  GTGATCTACCA-----GGCCCCCTGTAGTGGGGGAGGACCTGAGATCGGCGACAC 1260
Db      1201  GTGATCTACCAAGTACATGAGAGACCTGTAGTGGGGGAGGACCTGAGATCGGCGACAC 1260
QY      1261  CGGCGCAAGATCGAGAGAGTGTGCGCAAGCACTGTGTGCTTCAACACCCCGAG 1320
Db      1261  CGGCGCAAGATCGAGAGAGTGTGCGCAAGCACTGTGTGCTTCAACACCCCGAG 1320
QY      1321  AAGAGCACCAAGAGAGCGCCCTTCTGCTCCAT-----CGAGTGCACCCCGAAG 1374
Db      1321  AAGAGCACCAAGAGAGCGCCCTTCTGCTCCAT-----CGAGTGCACCCCGAAG 1380
QY      1375  TGAACCGTGAAGCCCATGAGCTTCCGAGAGAGAGAGTGGACCGTGAACGATCCAG 1434
Db      1381  TGAACCGTGAAGCCCATGAGCTTCCGAGAGAGAGAGTGGACCGTGAACGATCCAG 1440
QY      1435  AAGCTGTGGGCAAGCTGAAGTGGGCGAGCCAGACTTACCCTGCGCATCAAGTGGCGCAG 1494
Db      1441  AAGCTGTGGGCAAGCTGAAGTGGGCGAGCCAGCCAGACTTACCCTGCGCATCAAGTGGCGCAG 1500
QY      1495  CTGTGAAGCTGTGCGCGCGCGCCAGAGCCCTTGAACGACATGTGCTTGAACGAGAG 1554
Db      1501  CTGTGAAGCTGTGCGCGCGCGCCAGAGCCCTTGAACGACATGTGCTTGAACGAGAG 1560
QY      1555  GCGAGCTGGAAGCTGTGCGGAGAACCGGAGATCTTGGCGGAGCGCGGTGATC 1614
Db      1561  GCGAGCTGGAAGCTGTGCGGAGAACCGGAGATCTTGGCGGAGCGCGGTGATC 1620
QY      1615  TACGACCCAGCAAGAGCTGTGTCGAGATCCAGAGAGAGGCGCAAGCAAGTGAAC 1674
Db      1621  TACGACCCAGCAAGAGCTGTGTCGAGATCCAGAGAGAGGCGCAAGCAAGTGAAC 1680
QY      1675  TACGAGATCTACAGAGAGCCCTTCAAGACTTGAAGACCGGCAAGTACGCAAGATGGC 1734
Db      1681  TACGAGATCTACAGAGAGCCCTTCAAGACTTGAAGACCGGCAAGTACGCAAGATGGC 1740
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QY 1735 ACCGCCACCAACGAGCTGAAGCAGCTGACCCGAGCCGTGCGAGAAATCCCATGAG 1794
Db 1741 ACCGCCACCAACGAGCTGAAGCAGCTGACCCGAGCCGTGCGAGAAATCCCATGAG 1800
QY 1795 AACCATCTGTAATCTGGGGGCAAGACCCCAAGTTCCGCTGCGCATCCAGAGAGACCTGG 1854
Db 1801 AACCATCTGTAATCTGGGGGCAAGACCCCAAGTTCCGCTGCGCATCCAGAGAGACCTGG 1860
QY 1855 GAGACCTGGTGAACCGACTACTGAGCAGGCGACCTGTGATCCCGAGTGGAGTTCTGTGAAC 1914
Db 1861 GAGACCTGGTGAACCGACTACTGAGCAGGCGACCTGTGATCCCGAGTGGAGTTCTGTGAAC 1920
QY 1915 ACCCCCCCTGGTGAAGCTGTGTGTACAGCTGAGAGAGAGAGCCATCTCGCCCGAG 1974
Db 1921 ACCCCCCCTGGTGAAGCTGTGTGTACAGCTGAGAGAGAGAGCCATCTCGCCCGAG 1980
QY 1975 ACCCTTCTAGTGAAGGCGCCCGCAACCGGAGAGCCAAATGCGCAAGGCGCGCTAGCGAG 2034
Db 1981 ACCCTTCTAGTGAAGGCGCCCGCAACCGGAGAGCCAAATGCGCAAGGCGCGCTAGCGAG 2040
QY 2035 ACCGACCGGGGCGCGAGAGATCTGAGCCTGACCGAGACCAACCAAGAGAGCCGAG 2094
Db 2041 ACCGACCGGGGCGCGAGAGATCTGAGCCTGACCGAGACCAACCAAGAGAGCCGAG 2100
QY 2095 CTGCAAGGCAATCGAGCTGAGCTGCGAGAGCAAGCGGAGCGAGGTGAATCTGTGACGAG 2154
Db 2101 CTGCAAGGCAATCGAGCTGAGCTGCGAGAGCAAGCGGAGCGAGGTGAATCTGTGACGAG 2160
QY 2155 AGCCATAGAGCCCTGGGAGCTATCTCCAGGCGCCAGCCGAGCAAGAGCCAGAGCTGTGG 2214
Db 2161 AGCCATAGAGCCCTGGGAGCTATCTCCAGGCGCCAGCCGAGCAAGAGCCAGAGCTGTGG 2220
QY 2215 AACCATGATCTGAGAGCTGATCAAGAGAGAGAGAGTGTACTGAGCTGAGTGGCCGAGC 2274
Db 2221 AACCATGATCTGAGAGCTGATCAAGAGAGAGAGAGTGTACTGAGCTGAGTGGCCGAGC 2280
QY 2275 CACAAAGGAGATCGGCGGCAACGAGCAGATCGACAGCTGGTGAAGCAAGGAGCATCCGAG 2334
Db 2281 CACAAAGGAGATCGGCGGCAACGAGCAGATCGACAGCTGGTGAAGCAAGGAGCATCCGAG 2340
QY 2335 GTGCTGTTCTGAGAGCGGATCGATGAGCGGAGATGATGATCAACAGTGAATGAGCGAGCTG 2394
Db 2341 GTGCTGTTCTGAGAGCGGATCGATGAGCGGAGATGATGATCAACAGTGAATGAGCGAGCTG 2400
QY 2395 TACGTGGGAGCGGCGGCGCTTAGAGTCGATTAAGACTTCCCGGGGCTAGACCGGT 2451
Db 2401 TACGTGGGAGCGGCGGCGCTTAGAGTCGATTAAGACTTCCCGGGGCTAGACCGGT 2457
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## RESULT 15

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US-10-190-305A-39
; Sequence 39, Application US/10190305A
; Publication No. US20030198621A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan
; APPLICANT: LIAN, Ying
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
; TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: 2302-18702 / 18702.002
; CURRENT APPLICATION NUMBER: US/10/190,305A
; NUMBER OF SEQ ID NOS: 93
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 39
; LENGTH: 2457
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: p2Polopt_C
US-10-190-305A-39
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Query Match

97.8%; Score 2403.4; DB 6; Length 2457;

Best Local Similarity 99.3%; Pred. No. 0; Matches 2439; Conservative 0; Mismatches 6; Indels 12; Gaps 2;

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Db 1 GCCACCATGCGCGAGGCGATGAGCCAGGCGACACGCGCCATCTGATGAGCGGAGC 60
QY 67 AACTTCAAGGCGCCCAAGCGCATCATCAATGTCTTCAACTGCGGCAAGAGGCGCATC 126
Db 61 AACTTCAAGGCGCCCAAGCGCATCATCAATGTCTTCAACTGCGGCAAGAGGCGCATC 120
QY 127 GCCCGCAATGCGCGGCGCCCGCGCAAGAGGCGTGTGAAGTGGCGGCAAGAGGCGCAC 186
Db 121 GCCCGCAATGCGCGGCGCCCGCGCAAGAGGCGTGTGAAGTGGCGGCAAGAGGCGCAC 180
QY 187 CAGATGAAGAGATGACCGAGCGCCAGGCGCAACTTCTTCCGAGAGACTGTGCTTCC 246
Db 181 CAGATGAAGAGATGACCGAGCGCCAGGCGCAACTTCTTCCGAGAGACTGTGCTTCC 240
QY 247 CAGGCGCAAGGCGCGAGGTTCCCGAGCGAGAGAACCGCGCCACAGCCCGCACAGCCGC 306
Db 241 CAGGCGCAAGGCGCGAGGTTCCCGAGCGAGAGAACCGCGCCACAGCCCGCACAGCCGC 300
QY 307 GAGCTGCAAGTGGCGGCGGAGCAACCCCGGACGAGGCGCGGCGCGGCGGCGGCGGCGG 366
Db 301 GAGCTGCAAGTGGCGGCGGAGCAACCCCGGACGAGGCGCGGCGGCGGCGGCGGCGGCGG 360
QY 367 CTGAACCTTCCCGCAATCACTCTGTGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 426
Db 361 CTGAACCTTCCCGCAATCACTCTGTGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 420
QY 427 CAGATCAAGAGAGCGCTGTGAGCAACCGGCGCGAGAGACCGGTGTGAGAGATGAGC 486
Db 421 CAGATCAAGAGAGCGCTGTGAGCAACCGGCGCGAGAGACCGGTGTGAGAGATGAGC 480
QY 487 CTGCGCGGCAATGGAAGCGGCAAGATGATCGGCGGCGATGCGGCGGCTTCAAGAGTGGC 546
Db 481 CTGCGCGGCAATGGAAGCGGCAAGATGATCGGCGGCGATGCGGCGGCTTCAAGAGTGGC 540
QY 547 CAGTACGACCAAGATCTGATCGAGATCTTGCGGCAAGAGAGCCATCGGACCGGTGATC 606
Db 541 CAGTACGACCAAGATCTGATCGAGATCTTGCGGCAAGAGAGCCATCGGACCGGTGATC 600
QY 607 GCGCCGACCGCGGTGAACATCATCGGCGGCAACATGCTGACCCAGTGGGCTGACCTG 666
Db 601 GCGCCGACCGCGGTGAACATCATCGGCGGCAACATGCTGACCCAGTGGGCTGACCTG 660
QY 667 AACTTCCCATGAGCCCATCGAGACCGTGGCCCGTGAAGCTGAAGCCCGGCAATGAGCGGC 726
Db 661 AACTTCCCATGAGCCCATCGAGACCGTGGCCCGTGAAGCTGAAGCCCGGCAATGAGCGGC 720
QY 727 CCCAAGGTGAAGAGTGGCGCCCTGACCGAGAGAGATCAAGGCGCTGACCGCATCTGC 786
Db 721 CCCAAGGTGAAGAGTGGCGCCCTGACCGAGAGAGATCAAGGCGCTGACCGCATCTGC 780
QY 787 GAGGAGATGAGAGAGAGGCAAGATCAACCAAGATCGGCGCGAGAACCTTACCAACACC 846
Db 781 GAGGAGATGAGAGAGAGGCAAGATCAACCAAGATCGGCGCGAGAACCTTACCAACACC 840
QY 847 CCGGTGTTGCGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 906
Db 841 CCGGTGTTGCGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900
QY 907 GAGCTGAACAGAGCGGACCGAGAGCTTCTGGAGGTGACAGTGGGAGCTTCCCGACCGCGC 966
Db 901 GAGCTGAACAGAGCGGACCGAGAGCTTCTGGAGGTGACAGTGGGAGCTTCCCGACCGCGC 960
QY 967 GCGCTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1026
Db 961 GCGCTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1020
QY 1027 CCGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1086
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Db      1021 CCCCTGAGAGAGACTTCCGCAAGTACACCGCCTTCAACCATCCCGCAGCATCAACAACGAG 1080
Oy      1087 ACCCCGCGGATCCGCTACCAAGTACAAAGTGTGCTGCCAGGCGTGAAGGCGAGCCCCAGC 1146
Db      1081 ACCCCGCGGATCCGCTACCAAGTACAAAGTGTGCTGCCAGGCGTGAAGGCGAGCCCCAGC 1140
Oy      1147 ATCTTCAGAGCAGCATGACCAAGATCTGGAAGCCCTTCCGCGCCCGCAACCCCGAGATC 1206
Db      1141 ATCTTCAGAGCAGCATGACCAAGATCTGGAAGCCCTTCCGCGCCCGCAACCCCGAGATC 1200
Oy      1207 GTGATCTACCA-----GGCCCCCTGTAGTGGGAGGAGGAGCTGAGATCGGCGAGCAGC 1260
Db      1201 GTGATCTACCAAGTACATGACGACTGTACGTGGGAGGAGGAGCTGAGATCGGCGAGCAGC 1260
Oy      1261 CGGCGCAAGATCGAGAGGCTGCGCAAGCCTGTGCGTGGGGCTTCAACACCCCGAGC 1320
Db      1261 CGGCGCAAGATCGAGAGGCTGCGCAAGCCTGTGCGTGGGGCTTCAACACCCCGAGC 1320
Oy      1321 AAGAAGCAGCAAGAGAGCCCTTCTGCGCAT-----CGAGTGCACCCCGAGCAG 1374
Db      1321 AAGAAGCAGCAAGAGAGCCCTTCTGCGCAT-----CGAGTGCACCCCGAGCAG 1380
Oy      1375 TGAACGCTGACGCGCATTCGAGCTGCGCGAGAGAGGAGCTGAGCCGTTGAACGATCCAG 1434
Db      1381 TGAACGCTGACGCGCATTCGAGCTGCGCGAGAGAGGAGCTGAGCCGTTGAACGATCCAG 1440
Oy      1435 AAGCTGGTGGGCAAGCTGAAGTGGGCGAGCAGATCTACCCCGCATCAAGGTGCGCAG 1494
Db      1441 AAGCTGGTGGGCAAGCTGAAGTGGGCGAGCAGATCTACCCCGCATCAAGGTGCGCAG 1500
Oy      1495 CTGTGCAAGCTGTGCGCGGCGCCAGGCGCTGACCGCATCTGTGCTGCTGAGCCAGAG 1554
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Oy      1555 GCGGAGCTGAGAGCTGGCGGAGAACCGGAGATCTCTGGCGAGCGCGCGTGTAC 1614
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Db      1621 TAGAGCCCGCAAGAGCCTGTGGCGAGATCCAGAAAGGAGGCGCAGACGATGTGACC 1680
Oy      1675 TACAGATCTTACAGAGCCCTTCAAGACTTGAAGACCGGCAAGTACGCGCAAGATGCGC 1734
Db      1681 TACAGATCTTACAGAGCCCTTCAAGACTTGAAGACCGGCAAGTACGCGCAAGATGCGC 1740
Oy      1735 ACCGCGCACCAACAGAGTGAAGAGTGAACCGAGGCGGTGCAAGAGATGCGCATGAG 1794
Db      1741 ACCGCGCACCAACAGAGTGAAGAGTGAACCGAGGCGGTGCAAGAGATGCGCATGAG 1800
Oy      1795 AGCATCGTATCTGGGGGCAAGACCCCAAGTTCCGCTGCGCATCCAGAAAGAGACTTG 1854
Db      1801 AGCATCGTATCTGGGGGCAAGACCCCAAGTTCCGCTGCGCATCCAGAAAGAGACTTG 1860
Oy      1855 GAGACTGTGTGAGCCTACTGTGAGGCGCAGCTGTGATCCCGAGTGGAGTGTGTGAAC 1914
Db      1861 GAGACTGTGTGAGCCTACTGTGAGGCGCAGCTGTGATCCCGAGTGGAGTGTGTGAAC 1920
Oy      1915 ACCCCCCCTGTGTGAAGCTGTGTGAACAGAGCTGGAAGAGAGGCCATCATCGGCGCGAG 1974
Db      1921 ACCCCCCCTGTGTGAAGCTGTGTGAACAGAGCTGGAAGAGAGGCCATCATCGGCGCGAG 1980
Oy      1975 ACCCTTCTAGTGAAGGAGGCGCGCAACCGCGAGACCAAGATCGAGCAAGGCGGCTACGTG 2034
Db      1981 ACCCTTCTAGTGAAGGAGGCGCGCAACCGCGAGACCAAGATCGAGCAAGGCGGCTACGTG 2040
Oy      2035 ACCGACCGGCGCGCGCAGAGATCTGTAGCTGTAGCCTGACCGAGACCAACCAAGAGCCAG 2094
Db      2041 ACCGACCGGCGCGCGCAGAGATCTGTAGCTGTAGCCTGACCGAGACCAACCAAGAGCCAG 2100
Oy      2095 CTGCAAGGCGCATCAGCTGGCGCTTGCAGAGCAGCGGCGAGAGTGAACATCGTGAACGAC 2154
Db      2101 CTGCAAGGCGCATCAGCTGGCGCTTGCAGAGCAGCGGCGAGAGTGAACATCGTGAACGAC 2160

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Oy      2155 AGCCAGTACGCGCTGGGATCATCCAGGCGCCAGCCCGCAAGAGCGAGAGCGAGCTGTG 2214
Db      2161 AGCCAGTACGCGCTGGGATCATCCAGGCGCCAGCCCGCAAGAGCGAGAGCGAGCTGTG 2220
Oy      2215 AACGATCTATGACAGAGCTGATCAAGAGAGAGTGTACTTGAAGTGTGCTGCCGCC 2274
Db      2221 AACGATCTATGACAGAGCTGATCAAGAGAGAGTGTACTTGAAGTGTGCTGCCGCC 2280
Oy      2275 CACAGGCGATCGGCGGCAAGAGAGATCGACCAAGCTGTGTAGAGAGGCGATCCGCAAG 2334
Db      2281 CACAGGCGATCGGCGGCAAGAGAGATCGACCAAGCTGTGTAGAGAGGCGATCCGCAAG 2340
Oy      2335 GTGCTGCTCTGGAAGGCGCATTCGATGGCGGCGATCTGTATCTACCAAGTACATGACGACTG 2394
Db      2341 GTGCTGCTCTGGAAGGCGCATTCGATGGCGGCGATCTGTATCTACCAAGTACATGACGACTG 2400
Oy      2395 TACGTGGGAGGCGGCGCGCTTGAAGTCAATTAAGCTTCCGCGGCTAGCACCGGT 2451
Db      2401 TACGTGGGAGGCGGCGCGCTTGAAGTCAATTAAGCTTCCGCGGCTAGCACCGGT 2457

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Search completed: December 31, 2005, 03:58:09  
 Job time : 1728.8 secs



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QY 1032 GGACGAGAGCTTCCGCAAGTACACCGGCTTTCACCATCCCGAGATCAACAGAGACCC 1091  
Db 366 GGAACGAGAGCTTTAGAAAGTACACCGGCTTTTACATCCATCTATCAACAGAGACCC 425  
QY 1092 CGGATCCGCTACCACTGACACGTGTGCCCCGAGGCTGAAAGGAGCCGACATCTT 1151  
Db 426 TGGCATCAATATCACTACACAGTCTCTCCCGAGGGCTGAAAGGGCTCTCCGACATTTT 485  
QY 1152 CCAAGACAGATGACCAAGATCTTGAAGCCCTTCGCGCCCGCAACCCCGAAGTGTGAT 1211  
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QY 1380 CGTGCAGCCCATGAGCTGCGCGAGAGAGAGCTGACCGGTGAACGATCCAGAGCT 1439  
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QY 1440 GGTGGGCAAGCTGAACTGGGCGACGCAAGTCTACCCCGCATCAAGTGGGCCAGCTGTG 1499  
Db 786 GGTGGGCAAGCTGAACTGGGCGTACCAAGTCTACCCCGCATCAAGTGGGCCAGCTGTG 845  
QY 1500 CAAGCTGTGCGCGCGCGCAAGGCGCTTACCGACATGTGCGCTTCAACGAGAGGCGCA 1559  
Db 846 CAAGCTGTGCGCGCGCGCAAGGCGCTTACCGACATGTGCGCTTCAACGAGAGAGCGCA 905  
QY 1560 GGTGGAGCTGGCGGAGAACCGGAGATCTTGGGCGAGCGCGTGCAGCGGTGTACTACGA 1619  
Db 906 GGTGGAGCTGGCGGAGAACCGGAGATCTTGGGCGAGCGCGTGCAGCGGTGTACTACGA 965  
QY 1620 CCCCAAGAGAGCTGTGTGCGCGAGATCCAGAAAGAGGCGACAGACAGTGTGACTTACCA 1679  
Db 966 CCCCTCAAGAGAGCTGTGTGCGCGAATCCAGAAAGAGGCGACAGGCGAGTGTGACTTACCA 1025  
QY 1680 GATCTACCAAGAGCGCTTCAAGAACTTGAAGACCGGCAAGTACGCCAAGTGTGCAACCG 1739  
Db 1026 GATTTACCAAGAGCGCTTCAAGAACTTGAAGACCGGCAAGTACGCCCGCATGTAGGGCGC 1085  
QY 1740 CCAACCAACAGAGTGAAGAGAGTGAACGAGGCGGTGCAAGAAATGGCCATGTGAGAGCAT 1799  
Db 1086 CCAACCAACAGAGTGAAGAGAGTGAACGAGGCGGTGCAAGAAATGAACGAGCGAGTGCAT 1145  
QY 1800 CGTGTCTGTGGGCAAGACCCCAAGTTCCGCTGCGCATCCAGAAAGAGACTTGGAGAGAC 1859  
Db 1146 CGTGTCTGTGGGCAAGACCCCAAGTTCAAGTGTGCTATCCAGAAAGAGACTTGGAGAGAC 1205  
QY 1860 CTGTGTGACCGAGTACTGTGAGGCGACCTGTGATCCCCGAGTGGAGATTGTGTAACACCC 1919  
Db 1206 GTGTGTGACCGAGATATTGGGAGGCGACCTGTGATTTCCGAGTGGAGATTGTGTAATACCC 1265  
QY 1920 CCCCCCTGTGTGAAGCTGTGTGAACAGCTGAGAGAGAGCCCATCATGTGGGCGCGAGACCTT 1979  
Db 1266 TCTTCTGTGTGAAGCTGTGTGAACAGCTGAGAGAGAGCCCATGTGTGGCGCGAGACATT 1325  
QY 1980 CTACGTGTGACGAGCGCGCGCAACCGCGAGACCAAGATCGGCAAGGCGGCTTACGTCACGA 2039  
Db 1326 CTACGTGTGACGAGCGCGCGCAACCGCGAAGAAAGCTGTGGAGAGGCGCGGATACCTTACCA 1385  
QY 2040 CCGGAGGCGCGGACAGAGATGTGTGAGCTTGAACCGAGACCAACCAAGAGACCGAGCTGCA 2099  
Db 1386 CCGGAGGCGCGGACAGAGATGTGTGAGCTTGAACCGAGACCAACCAAGAGAGCGAGCTGCA 1445

QY 2100 GGCCATTCAGAGCTGGCCCTTGCAGAGACGCGCAGGAGTGAACATCTGTACCGACGCA 2159  
Db 1446 GGCCATTCATCTCGCTCTCAGAGACTCGGCGCTGGAGGTAACATCTGTACCGACGCA 1505  
QY 2160 GTACGCGCTGGGATCATTCAGGCCCCGACGCGCAAGAGCGGAGACGTGTGAACCA 2219  
Db 1506 GTACGCGCTGGGATCATTCAGGCCCCGACGCGCAAGAGTCCGAGAGCGAACTGTGTGAACCA 1565  
QY 2220 GATCATTCAGAGCTGTATCAAGAGAGAGGTGTACTGAGCTGGGTGCCCCGACAA 2279  
Db 1566 GATTTATCGAGAGCTGTATCAAGAGAGAGGTGTACTGAGCTGGGTGCCCCGACAA 1625  
QY 2280 GGGCATCGCGCGCAACGAGCAGATGACAGCTGTGTGAGCAAGGCGATCCGAGGTGT 2339  
Db 1626 GGGCATTCGCGCGCAACGAGCAGATGACAGCTGTGTGAGTGTGCGGGAATTAGAAAGGTGT 1685  
QY 2340 GT 2341  
Db 1686 GT 1687

RESULT 2  
US-10-507-928-11  
; Sequence 11, Application US/10507928  
; Publication No. US2005026024A1  
GENERAL INFORMATION:  
; APPLICANT: POWDERMED LIMITED AND GLAXO GROUP LIMITED  
; TITLE OF INVENTION: ADJUVANT  
; FILE REFERENCE: N.86232B GCW  
; CURRENT APPLICATION NUMBER: US/10/507,928  
; CURRENT FILING DATE: 2004-09-17  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 11  
; LENGTH: 1689  
; TYPE: DNA  
; ORGANISM: Artificial sequence  
; FEATURE:  
; OTHER INFORMATION: nucleotide sequence of the coding insert in p731-RT3  
US-10-507-928-11

Query Match 52.5%; Score 1289.2; DB 6; Length 1689;  
Best Local Similarity 86.3%; Pred. No. 4.5e-200;  
Matches 1452; Conservative 0; Mismatches 218; Indels 12; Gaps 2;

QY 672 CCCCATCAGCCCATTCGAGACCGTGTCCGTTGAAGCTTGAAGCCCGGATGAGAGCGCCCA 731  
Db 6 CCCCATCAGTCCCATCGAGACCGTGTCCGTTGAAGCTTGAAGCCCGGATGAGAGCGCCCA 65  
QY 732 GGTGAAGCAGTGGCCCTTGAACGAGGAGAAATCAAGGCCCTGACCGCATCTGAGAGGA 791  
Db 66 GGTGAAGCAGTGGCCCTTGAACGAGGAGAAATCAAGGCCCTTGTGTGAATCTGCACCGA 125  
QY 792 GATGAGAAAGAGGGGCAAGATCAACAGATCGGCCCCGAGAACCCCTCAACACACCCCGT 851  
Db 126 GATGAGAAAGAGGGGCAAGATCAACAGATCGGCGCTGAGAACCCCTCAACACACCCCGT 185  
QY 852 GTTCCGATCAAGAGAGAGACAGCACCAAGTGGCGCAAGCTGTGTGAATCTTCCGCGAGCT 911  
Db 186 GTTTCGATCAAGAGAGAGAGACAGCACCAAGTGGCGCAAGCTGTGTGAATCTTCCGCGAGCT 245  
QY 912 GAAACAAGGCAACCGAGACTTGTGAGGAGTGAAGCTGTGGCATTCGCCACCCCGCGGCT 971  
Db 246 GAATTAAGCGAACCAGATTTTCTGGAGAGTCAAGCTGTGGCATTCGCCACCCCGCGGCT 305  
QY 972 GAAAGAAGAAAGAGCGTGAACGATGAGAGTGTGAGAGTGTGAGAGCGCTTACGCTGCT 1031  
Db 306 GAAAGAAGAAAGAGCGTGAACGATGAGAGTGTGAGAGTGTGAGAGCGCTTACGCTGCT 365  
QY 1032 GGAAGAGAGCTTCCGCAAGTACACGCGCTTCAACATCCCAAGATCAACAGAGACCC 1091  
Db 366 GGAAGAGAGCTTGAAGAGTACACGCGCTTCAACATCCCAAGATCAACAGAGACCC 425

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QY 1092 CCGCATCCGCTACAGTACACCTGTGCCCAAGGCTGGAAGGCGACCCCAAGCATCTT 1151
DB 426 TGGCATCAGATATACATACACCTGTGCCCAAGGCTGGAAGGCGCTCTTCCCAATTTT 485
QY 1152 CCAAGACAGATGACCAAGATCTGTGAGCCCTTCCGCGCCCAACCCCGAGATCGTAT 1211
DB 486 CCAAGACCTCCTACCAAGATCTGTGAGCCGTTTCGGAACAGAACCCCGATATCGTAT 545
QY 1212 CTACCA-----GGCCCCCTGTACGTGTGAGCGACGACCTGTGAGATCGCGACCGCG 1265
DB 546 CTACCAAGTATACAGATCTGTGAGCGCTGTGAGATCGCGACCTGTGAGATCGCGAC 605
QY 1266 CAAAGTACAGAGCTGTGAGCAAGCACTGTGCGCTGAGGCTTCAACAACCCCGCAAGAA 1325
DB 606 GAAGATGAGAGCTGTGAGCGACGATCTGTGAGTGGGCGCTGACCACTCCGACAAAGAA 665
QY 1326 GCAACCAAGAGACCCCTTCTGCTGCCAT-----CGAGCTGACCCCGCAAGATGAGAC 1379
DB 666 GCATCAGAAAGAGACCCGCTATCTGTGATGAGGCTGAGAGCTCCATCCGACAAAGTGA 725
QY 1380 CGAGACGCCCATGAGCTGTGCGCGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1439
DB 726 CGAGACGCTTATGCTCTTCCCGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 785
QY 1440 GGTGGGCAAGCTGAACTGTGAGCGACGACGATCTACCCCGGATCAAGGTGCGCACTGTG 1499
DB 786 GGTGGGCAAGCTGAACTGTGAGCGAGCTGAGCTATCCCGGATCAAGGTGCGCACTGTG 845
QY 1500 CAAGCTGTGCGCGCGCGCAAGGCTGTGACGACATGTGTCCCTGACCGAAGAGCGCA 1559
DB 846 CAAGCTGTGCGCGCGCGCAAGGCTGTGACGAGTATTCCTTCAAGAGAGAGCGCA 905
QY 1560 GCTGAGCTGTGCGCGCGAGAACCGCGAGATCTGTGCGCGAGCCGCTGTGATCTACGA 1619
DB 906 GCTGAGCTGTGCGCGCGAGAACCGCGAGATCTGTGAGAGAGCCGCTGTGATCTATGA 965
QY 1620 CCCCAGCAAGAGCTGTGTGCGCGAGATCTGAAAGCAAGGCGCAAGAGATCTGTGAG 1679
DB 966 CCCCAGCAAGAGCTGTGTGCGCGAGATCTGAAAGCAAGGCGCAAGAGATCTGTGAG 1025
QY 1680 GATCTACAGAGAGCCCTTCAAGAACCTGTGAGAACCGCGCAAGTATCCCGCAAGCG 1739
DB 1026 GATCTACAGAGAGCCCTTCAAGAACCTGTGAGAACCGCGCAAGTATCCCGCAAGCG 1085
QY 1740 CCAACCAAGAGAGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1799
DB 1086 CCAACCAAGAGAGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1145
QY 1800 CGTATCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1859
DB 1146 CGTATCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1205
QY 1860 CTGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1919
DB 1206 GTGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1265
QY 1920 CCCCCTGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1979
DB 1266 TCTGTGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1325
QY 1980 CTAGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2039
DB 1326 CTAGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1385
QY 2040 CCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2099
DB 1386 CCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1445
QY 2100 GGCATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2159
DB 1446 GGCATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1505

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QY 2160 GTACGCCCTGTGAGATCATCCAGGCCCGCAAGAGAGAGAGAGAGAGAGAGAGAG 2219
DB 1506 GTACGCCCTGTGAGATCATCCAGGCCCGCAAGAGAGAGAGAGAGAGAGAGAGAG 1565
QY 2220 GATCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2279
DB 1566 GATCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1625
QY 2280 GGGCATGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2339
DB 1626 GGGCATGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1685
QY 2340 GT 2341
DB 1686 GT 1687

RESULT 3
US-11-029-465-9
; Sequence 9, Application US/11029465
; Publication No. US20050256070A1
; GENERAL INFORMATION:
; APPLICANT: Braun, Ralph P.
; APPLICANT: Thomsen, Lindy
; APPLICANT: Van-Wely, Catherine
; APPLICANT: Ertl, Peter
; TITLE OF INVENTION: Adjuvant
; FILE REFERENCE: 031267-015
; CURRENT APPLICATION NUMBER: US/11/029,465
; CURRENT FILING DATE: 2005-01-06
; NUMBER OF SEQ. ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 9
; LENGTH: 1689
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: nucleotide sequence of RT insert of p7077-RT3
US-11-029-465-9

Query Match      52.5%; Score 1289.2; DB 7; Length 1689;
Best Local Similarity 86.3%; Pred. No. 4,5e-200;
Matches 1452; Conservative 0; Mismatches 218; Indels 12; Gaps 2;

QY 672 CCCCATGACCCCATGAGACCGCTGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 731
DB 6 CCCCATGAGTCCCATGAGACCGCTGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 65
QY 732 GGTGAAGCAGTGGCCCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 791
DB 66 GGTGAAGCAGTGGCCCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 125
QY 792 GATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 851
DB 126 GATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 185
QY 852 GTTGCCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 911
DB 186 GTTGCCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 245
QY 912 GAACAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 971
DB 246 GAATTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 305
QY 972 GAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1031
DB 306 GAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 365
QY 1032 GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1091
DB 366 GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 425
QY 1092 CGGATCCGCTACAGTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1151

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Db 426 TGCGATCAGATATCACTACAGTCTCTCCCAAGGCTGGAAGGCTCTCCGCCATTTT 485  
Qy 1152 CCAGAGCAGCATGACCAAGATCTTGAGGCTTCCGCGCCCGAACCCCGAGATCTGAT 1211  
Db 486 CCAAGCTCCTATACCAAGATCTTGAGGCTTCCGGAAGCAAGAACCCCGATCTGAT 545  
Qy 1212 CTACCA-----GGCCCCCTGTAGCTGGCAGCGACCTGAGATGTGGCAGCAGCCGC 1265  
Db 546 CTACCGATCATGAGCAGCTGTACGTGGCTCTGACCTGGAATGTGGGACGATGCGAC 605  
Qy 1266 CAAGATTCGAGAGCTGCGAGACCTGTGGCTGGGGCTTACCAACCCCGCAGAGAA 1325  
Db 606 GAAGATTGAGAGCTGAGCGACATCTGTAGATGGGCTTACCACTTCCGACAGAA 665  
Qy 1326 GCACAGAGAGAGCCCTCTCTGCTGCTGCT-----CGAGCTGACCCCGCAGAGTGAC 1379  
Db 666 GCATCAGAGAGAGCCCGCATCTCTGTGAGTGGGCTAGAGCTCATCTCCGACAGTGAC 725  
Qy 1380 CGTGCAGCCCATGAGCTGCGCAGAAAGAGAGCTGACCTGTGAAGCATCCAGAAAGCT 1439  
Db 726 CGTGCAGCTTATCTGCTCTCCCGAAGAGACAGCTGACCTGTGAAGCATCCAGAAAGCT 785  
Qy 1440 GGTGGCAGCTGTAATCTGGGCGCAGCAGATCTACCCGCGATGAGGTGCGCAGCTGT 1499  
Db 786 GGTGGGCGAGCTCAACTGGGCTGAGCAGATCTATCCCGGAGTCAAGGTGCGCAGCTGT 845  
Qy 1500 CAAGCTGCTGCGGCGCGCAGAGCCCTGACCGACATCTGTGCTCCCTGACCGAGAGGCGCA 1559  
Db 846 CAAGCTGCTGCGGCGCGCAGAGCCCTGACCGAGCTGATCTCCCTGACCGAGAGGCGCA 905  
Qy 1560 GCTGAGCTGGCCGAGAACCGGAGATCTGTCCGCGAGCCCTGTGACCGGCTGTACTACGA 1619  
Db 906 GCTGAGCTGGCTGAGAACCGGAGATCTGAAAGAGCCCGTGCACCGCTGTACTATGA 965  
Qy 1620 CCCCAGAGAGAGCTGTGCTGCGCAGATCTCAGAGAGAGGCGACAGACAGTGAAGCACTACCA 1679  
Db 966 CCCCCTCCAGAGAGCTGTGCTGCGCAGATCTCAGAGAGAGGCGACAGTGAAGTACCA 1025  
Qy 1680 GATCTACAGAGAGCCCTTCAAGAACTGAGAACCGGAGATGAGCCCAAGTGGCGACCGC 1739  
Db 1026 GATTTACAGAGAGCCCTTCAAGAACTCAGAACCGGAGATGAGCCCGCATGAGAGGCGC 1085  
Qy 1740 CCAACACCAAGAGCTGAGAGAGCTGACCGAGCGCTGAGAGAGTCCCATGAGAGCAT 1799  
Db 1086 CCAACACCAAGAGTGAAGAGCTGACCGAGCGCTGAGAGAGTCAAGACCGAGTCCAT 1145  
Qy 1800 CGTATCTGGGCGCAAGACCCCGCAAGTTCGCTGCTCCATCCAGAGAGAGCTGGGAGAC 1859  
Db 1146 CGTATCTGGGCGCAAGACCCCGCAAGTTCAGCTGCTATCCAGAGAGAGCTGGGAGAC 1205  
Qy 1860 CTGGTGAACGAGTACTGAGAGGCGCACCTGGATCCCGAGTGGAGTTCGTAACACCC 1919  
Db 1206 GTGGTGAACGAAATTTTGGAGGCGCACCTGGATCCCGAGTGGAGTTCGTAATACCC 1265  
Qy 1920 CCCCCTGTGAGAGCTGTGTAACAAGTGAAGAGAGCCATCATCGGCGCGAGACCTT 1979  
Db 1266 TCCCTGTGTAAGCTGTGTAACAAGTGAAGAGAGCCATCATCGGCGCGAGACAT 1325  
Qy 1980 CTATGTAAGAGCGGCGCGCAACCGGAGAGCAAGATGTGGCAAGGCTGGCTGAGACGA 2039  
Db 1326 CTATGTAAGAGCGGCGCGCAACCGGAGAGCAAGATGTGGCAAGGCTGGCTGAGACGA 1385  
Qy 2040 CCGGAGCGCGAGAGATCTGAGCTGAGAGAGCAACCAAGAGAGAGCCAGAGTGA 2099  
Db 1386 CCGGAGCGCGAGAGATCTGAGCTGAGAGAGCAACCAAGAGAGAGAGAGAGTGA 1445  
Qy 2100 GGCATCATGAGCTGAGCTGAGAGAGAGAGAGAGAGAGTGAAGTGTGACCGAGCA 2159  
Db 1446 GGCATCATGAGCTGAGCTGAGAGAGAGAGAGAGAGAGTGAAGTGTGACCGAGCA 1505  
Qy 2160 GTAGGCGCTGGGATCATTCAGAGCGCAGACCGAGAGAGAGAGAGAGAGTGAAGCA 2219  
Db 1506 GTAGGCGCTGGGATCATTCAGAGCGCAGACCGAGAGAGAGAGAGAGTGAAGCA 1565

Qy 2220 GATCATCGAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTGGGTGTCGCCCAACA 2279  
Db 1566 GATTTATCGAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTGGGTGTCGCCCAACA 1625  
Qy 2280 GGCATCGGCGCAACGAGCAGATGACAGAGCTGTGTGAGCAAGGCGATCGCAAGTGT 2339  
Db 1626 GGCATTTGGCGCGCAACGAGCAGATGACAGAGCTGTGTGAGTGTGCGGATTTAGAAAGTGTCT 1685  
Qy 2340 GT 2341  
Db 1686 GT 1687

RESULT 5  
US-11-042-988-10  
; Sequence 10, Application US/11042988  
; Publication No. US20050244818A1  
; GENERAL INFORMATION:  
; APPLICANT: SILICIANO, ROBERT  
; APPLICANT: ZHANG, HAILI  
; APPLICANT: ZHOU, YAN  
; TITLE OF INVENTION: SINGLE CELL ANALYSIS OF HIV REPLICATION CAPACITY AND  
; FILE REFERENCE: 62760 (71699)  
; CURRENT APPLICATION NUMBER: US/11/042,988  
; CURRENT FILING DATE: 2005-01-25  
; PRIOR APPLICATION NUMBER: 60/540,716  
; PRIOR FILING DATE: 2004-01-30  
; NUMBER OF SEQ ID NOS: 16  
; SOFTWARE: PatentIn Ver. 3.3  
; SEQ ID NO 10  
; LENGTH: 9719  
; TYPE: DNA  
; ORGANISM: Human immunodeficiency virus type 1  
US-11-042-988-10

Query Match 44.0%; Score 1081.6; DB 9; Length 9719;  
Best Local Similarity 67.9%; Pred. No. 1.3e-166;  
Matches 1610; Conservative 0; Mismatches 734; Indels 28; Gaps 6;

Qy 14 TGCGAGAGCGCATGAGCGAGCCACCA---GCGCAACATCTGATGACGCGCAACT 70  
Db 1877 TGCGTGAAGCATGAGCGAGCAAGTAAACAATTCAGCTACATATGATGACAGAGGCAATT 1936  
Qy 71 TCAAGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGAGGCGCAATCGCCC 130  
Db 1937 TTAGGAACCAAGAAAGATTTGTAAGTGTTCATTTGTGCAAAAGAGGCGCACACAGCCA 1996  
Qy 131 GCAATGCGCGCGCGCGCGCAAGAGAGGCTGTGGAAGTCCGCGCAAGAGAGGCGCAAGA 190  
Db 1997 GAATTTGCAAGGCGCGCGCGCAAGAGAGGCTGTGGAAGTGTGGAAGAGAGAGAGCAAGA 2056  
Qy 191 TGAAGAGCTGACAGAGCGCGCAAGCTTCTTCCGAGAGACTGTGCGCTTCCCGCAGG 250  
Db 2057 TGAAGATTTTACTGAGAGAGAGCTTAA-TTTTTTAGGAGAGATGTGCTTCTTACAG 2115  
Qy 251 GCAAGCGCGCGAGTTCCTCCAGAGAGAGAGAGCGCGCAACAGCCCAACAGCGCGAGC 310  
Db 2116 GGAAGCGCAAGAGATTTTCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGC 2175  
Qy 311 TGCAGGTGCGCGG-----CGACAAACCCCGCGAGAGAGGCGGCGCGAGCGCGAGGCA 364  
Db 2176 TTCAGGTCTGGGAG 2235  
Qy 365 -----CCCTGAATCTTCCCGAGATGACCTGTGTGAGCGCGCGCGCTGTGAGCATCAAG 418  
Db 2236 CTGTATCTTTAACTTCTTCAAGTCACTTTTGGACAGACAGCCCTGTGATTAAGA 2295  
Qy 419 TGCGCGCGAGATCAAGAGAGCGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 478  
Db 2296 TAGGGGGGCAACTTAAGAGAGCTTATTAAGATACAGAGAGAGATGATATTAAGAG 2355



419 AGATGAGCTGCGCCGCAAGTGAAGCCCAAGATGATCGCGGATCGCGGCTTCATCA 538  
2356 AATATGATTTGGCAGGAAAGATGGAACCAAAATGATAGGGGAAATTGAGGTTTATCA 2415  
539 AGGTGCGCAATGACGACGAGATCTGATGAGATCTGCGCAAGAAAGCCATGCGACG 598  
2416 AAGTAAGACAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2475  
599 TGGTATGCGCCCAACCCCGTGAACATATGCGCGCAACATGCTGACCGAGCTGGCT 658  
2476 TATTTAGTACGACCTTACCTGTCACATATGGAAGAAATCTGTGACTCGAATTTGTT 2535  
659 GCAACCTGAATCTCCCATCAGCCCATGAGACCGTGCCTGTAAGTGAAGCCCGCA 718  
2536 GCACTTTAAATTTTCCCATTTAGCCCTATTTAGAGCTGTACAGTAAATTTAAGCCAGAA 2595  
719 TGGACGGCCCAAGGTGAAGCACTGCGCCCTGACCGAGAGAAAGATCAAGCCCTGACG 778  
2596 TGGATGGCCCAAGGTGAAGCACTGCGCCCTGACCGAGAGAAATTTAAGCAATTTAGTAG 2655  
779 CCATCTGCGAGAGATGAGAGAGAGAGAGAGATCAACAGATCGGCGCCGAGAACCCCT 838  
2656 AATTTGTACAGAGATGAGAGAGAGAGAGAGATTTCAAAATTTGGGCTGAAATTCAT 2715  
839 ACAACACCCCGGCTTCCCATCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 898  
2716 ACAATCTCAAGATTTTCCCATTTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2775  
899 ACTTCCGAGAGCTGAACAG 958  
2776 ATTTGAG 2835  
959 ACCCGCGCGGCTGAG 1018  
2836 ATCCCGAG 2895  
1019 TCAGCTGCGCCCTGAG 1078  
2896 TTTCAATTTCCCTTAAAGTAAAGATTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2955  
1079 ACAACAG 1138  
2956 ACAATGAG 3015  
1139 GCGCCGAG 1198  
3016 CACCAAG 3075  
1199 CCGAGATCGTATCTCA-----GAGCCCTGTACGTGGGAGAGAGAGAGAGAGAGAGAGAG 1252  
3076 CAGACATAGTATCTATCAATATAGATGATGATGATGATGATGATGATGATGATGATGATGAT 3135  
1253 GCCAG 1312  
3136 GCGAGATGAG 3195  
1313 CCGCCGAG 1366  
3196 CACCAAG 3255  
1367 CCGACAG 1426  
3256 CTGATTAATGAG 3315  
1427 ACATCAG 1486  
3316 ACATCAG 3375  
1487 TGGGAG 1546  
3376 TAAAG 3435  
1547 CCGAG 1606

3436 CAG 3495  
1607 GGTGTACTACAG 1666  
3496 GAGTATATATAG 3555  
1667 AGTGAAG 1726  
3556 AATGAG 3615  
1727 AGTGAAG 1786  
3616 GATGAG 3675  
1787 CCATGAG 1846  
3676 CCAAG 3735  
1847 AGACCTGAG 1906  
3736 AATGAG 3795  
1907 TGTGAACAG 1966  
3796 TGTGAATAG 3855  
1967 GCGCGAG 2026  
3856 GAGCAG 3915  
2027 GCTAG 2086  
3916 GATATGAT 3975  
2087 AGACGAG 2146  
3976 AGATGAG 4035  
2147 TGAAG 2206  
4036 TAAAG 4095  
2207 AGTGTGAG 2266  
4096 AGTGTGAG 4155  
2267 TGGCGAG 2326  
4156 TACAG 4215  
2327 TCCGAG 2386  
4216 TCAAG 4247

RESULT 6  
US-10-519-531-8  
; Sequence 8, Application US/10519531  
; Publication No. US2005024429A1  
; GENERAL INFORMATION:  
; APPLICANT: Folke, Thomas M.  
; TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR  
; FILE REFERENCE: 14114.037302  
; CURRENT APPLICATION NUMBER: US/10/519,531  
; CURRENT FILING DATE: 2004-12-27  
; PRIOR APPLICATION NUMBER: PCT/US03/20325  
; PRIOR FILING DATE: 2003-06-27  
; PRIOR APPLICATION NUMBER: 60/392,630  
; NUMBER OF SEQ ID NOS: 8  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 8

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; LENGTH: 17207
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:/note =
US-10-519-531-8
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Query Match      6.4%; Score 156.2; DB 6; Length 17207;
Best Local Similarity 66.7%; Pred. No. 2.5e-17;
Matches 289; Conservative 0; Mismatches 128; Indels 16; Gaps 4;
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QY      14 TGGCCGAGGCGCATGAGCCAGGCCACCA---GGCCCAACATCTTGATGACGCCAGCAACT 70
      13954 TGGCTGAAGCAATGAGCCAGCAAGTAAACAATCCAGCTACATATGATACGAAAGCAAT 14013
      71 TCAGAGGCGCCCAAGCCGATCATCAAGTCTTCAACTGCGGCAAGAGGCGCATCGGCC 130
      14014 TTAGGAACCAAGAAAGACATGTTAAGTTTCAATTTGTGCAAGAAAGAGGCGCATAGCCA 14073
QY      131 GCAACTGCCGCGCCCGCCCGCAAGAGGCGTGTGGAAGTGGCGCAAGAGGCGCCACCA 190
      14074 AAATTTGACAGGCGCCCTAGAGAAAGGCGTGTGGAATGTGAAAGAGAACACCA 14133
QY      191 TGAAGACTGACACCGAGCGCCAGGCCAATTTCTTCGCGAGACCTGCGCTTCCCGCAGG 250
      14134 TGAAGATTGTACTGAGAGACAGGCTAA-TTTTATAGGGAAGATCTGGCCCTCCACAG 14192
QY      251 GCAAGGCGCGCGAGTCTCCCGAGAGAGAACCGCGCCACAGCCCGCAGCGCGAGC 310
      14193 GGAAGGCGAGGAAATTTCTTCAAGAGCAACAGAGCAACAGCCCGCCACCAAGAGAGC 14252
QY      311 TGCAGGTGCGCGG-----CGACAACCCCGCGAGCGAGCGCGCGCCAGCGGCA 364
      14253 TTCAAGTTTGGGGAAGAGACAACTCTCTTCAGAGAGAGAGCGGATAGACAGAA 14312
QY      365 -----CCCTGAATCTTCCCGCATCATCTGTGCGAGCGCGCGCTGTGATCAAG 418
      14313 CTGATCTTTAGCTTCCCTCAGATCATCTTTGGCGAGCAACCCCTGTGCAATATACAA 14372
QY      419 TGGCGCGCGCAGAT 431
      14373 GGGGAAGTGACAT 14385
DB
```

## RESULT 7

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US-10-519-531-2
; Sequence 2, Application US/10519531
; Publication No. US20050244429A1
; GENERAL INFORMATION:
; APPLICANT: Polks, Thomas M.
; TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR
; FILE REFERENCE: 14114.037302
; CURRENT APPLICATION NUMBER: US/10/519, 531
; PRIOR FILING DATE: 2004-12-27
; PRIOR APPLICATION NUMBER: PCT/US03/20325
; PRIOR FILING DATE: 2003-06-27
; PRIOR APPLICATION NUMBER: 60/3392, 630
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 1503
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:/note =
US-10-519-531-2
```

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Query Match      6.3%; Score 154.6; DB 6; Length 1503;
Best Local Similarity 67.6%; Pred. No. 4.9e-17;
Matches 282; Conservative 0; Mismatches 119; Indels 16; Gaps 4;
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QY      14 TGGCCGAGGCGCATGAGCCAGGCCACCA---GGCCCAACATCTTGATGACGCCAGCAACT 70
      1088 TGGCTGAAGCAATGAGCCAGCAAGTAAACAATCCAGCTACATATGATAGAAAGCAAT 1147
QY      71 TCAGAGGCGCCCAAGCCGATCATCAAGTCTTCAACTGCGGCAAGAGGCGCATCGGCC 130
      1148 TTAGGAACCAAGAAAGACATGTTAAGTTTCAATTTGTGCAAGAAAGGCGCATAGCCA 1207
QY      131 GCAACTGCCGCGCCCGCCCGCAAGAGGCGTGTGGAAGTGGCGCAAGAGGCGCACCA 190
      1208 AAATTTGACAGGCGCCCTAGAGAAAGGCGTGTGGAATGTGAAAGAGAGAACACCA 1267
QY      191 TGAAGACTGACACCGAGCGCCAGCCAACTTCTTCGCGAGAGACTGCGCTTCCCGCAGG 250
      1268 TGAAGATTGTACTGAGAGACAGGCTAA-TTTTATAGGGAAGATCTGCGCTTCCCAAG 1326
QY      251 GCAAGGCGCGAGTCTCCCGAGAGCAAGCCGCGCAAGCCCGCAGCGCGAGC 310
      1327 GGAAGGCGAGGGAATTTCTTCAAGAGCAGACCAAGCCCAAGCCCGCAGAGAGAGC 1386
QY      311 TGCAGGTGCGCGG-----CGACAACCCCGCGAGCGAGCGCGCGCGCGCGCA 364
      1387 TTCAAGTTTGGGGAAGAGACAACTCTCTTCAGAAACAGAGCGCGATAGACAGAA 1446
QY      365 -----CCCTGAATCTTCCCGCATCATCTGTGCGAGCGCGCGCTGTGATGATCA 415
      1447 CTGATCTTTAGCTTCCCTCAGATCATCTTTGGCGAGGAGCCCTGTGCAATATAC 1503
DB
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## RESULT 8

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US-10-507-928-3
; Sequence 3, Application US/10507928
; Publication No. US2005026024A1
; GENERAL INFORMATION:
; APPLICANT: POWDERED LIMITED AND GLAXO GROUP LIMITED
; TITLE OF INVENTION: ADJUVANT
; FILE REFERENCE: N.86328 GCM
; CURRENT APPLICATION NUMBER: US/10/507, 928
; PRIOR FILING DATE: 2004-09-17
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 1503
; TYPE: DNA
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: nucleotide sequence of p55 gag insert in p5agoprpr2
US-10-507-928-3
```

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Query Match      5.8%; Score 141.4; DB 6; Length 1503;
Best Local Similarity 69.0%; Pred. No. 6.6e-15;
Matches 223; Conservative 0; Mismatches 96; Indels 4; Gaps 2;
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QY      14 TGGCCGAGGCGCATGAGCCAGGCCACCA---CCACGAGCGCAACATCTGATGACGCGAGCAACT 70
      1088 TGGCCGAAGCCATGAGCGAGGAGTACGAATCTCCGCAACATCATGATGACAGAGGCAACT 1147
QY      71 TCAGAGGCGCCCAAGCCGATCATCAAGTCTTCAACTGCGGCAAGAGGCGCATCGGCC 130
      1148 TCAGCATGAGCGGAAGATGCTGAAGTTTCAATTTGCGGCAAGAGGATATACCGGCC 1207
QY      131 GCAACTGCCGCGCCCGCCCGCAAGAGGCGTGTGGAAGTGGCGCAAGAGGCGCACCA 190
      1208 GCAACTGTGCGGCGCCCTAGAGAAAGAGGTTGGAAGTGGCGCAAGAGGAGACACCA 1267
QY      191 TGAAGACTGACACCGAGCGCCAGCCAACTTCTTCGCGAGAGCTGCGCTTCCCGCAGG 250
      1268 TGAAGACTGTACGAAGACAGGCGCA-TTTTCTTGAAGAGATTTGCGAGCTTACAG 1326
QY      251 GCAAGGCGCGAGTCTCCCGAGAGAGAACCGCGCAACAGCCCGCAGCGAGC 310
      1327 GGGAGACTGTATTTCTTGGCAAGAGAGCGCGAGCGCCCGCTGAGAGATTC 1386
DB
```

```
QY 311 TGCAGGTGCGCGCGACACCCC 333
Db 1387 TTCAGGTCGGAAGTGAAGACAC 1409

RESULT 9
US-11-029-465-3
; Sequence 3: Application US/11029465
; Publication No. US20050256070A1
; GENERAL INFORMATION:
; APPLICANT: Braun, Ralph P.
; APPLICANT: Thomsen, Lindy
; APPLICANT: Van-wely, Catherine
; APPLICANT: Brl, Peter
; TITLE OF INVENTION: Adjuvant
; FILE REFERENCE: 033267-015
; CURRENT APPLICATION NUMBER: US/11/029,465
; CURRENT FILING DATE: 2005-01-06
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 1503
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: nucleotide sequence of the p55 gag insert in
; US-11-029-465-3

Query Match 5.8%; Score 141.4; DB 7; Length 1503;
Best Local Similarity 69.0%; Pred. No. 6.6e-15;
Matches 223; Conservative 0; Mismatches 96; Indels 4; Gaps 2;

QY 14 TGGCCGAGGCCATGACCCAGG---CCACGAGCGCCCACTCTGATGACGCGCAACT 70
Db 1088 TGGCCGAGGCCATGACCCAGGAGTGTGAAGTGTTCATTTGCGGCAAGAGGCTCATACCGCC 1147

QY 71 TCAGAGGCCCCCAAGCCCATCATGAAGTCTCACTGCGGCAAGAGGCGCATGAGCC 130
Db 1148 TCAGCAATAGCGGAAGATGTGAAGTGTTCATTTGCGGCAAGAGGCTCATACCGCC 1207

QY 131 GCAACTGCGCGCGCGCGCGCGCGCAAGAGGCTGTAAGTGCAGAGAGGCGCCACAGA 190
Db 1208 GCAACTGTGCGCGCGCGCGCGCGCGCAAGAGGCTGTAAGTGCAGAGAGGCGCCACAGA 1267

QY 191 TGAAGACTGACCGAGCGCGCAAGCCCACTTCTTCGCGAGAGACTGCGCTTCCCGCAG 250
Db 1268 TGAAGACTGTACAGAGAGCAAGGCGCA--TTTCTTGAAAGATTGCGCGAGCTACAG 1326

QY 251 GCAAGCGCGCGCGAGTTCCTCCAGAGCAAGACCGCGCCCAAGCCCAAGCGCGAGC 310
Db 1327 GGAAGACTGTGTAATTTCTGCAAGAGCGCGAGCCCAAGCGCGCGCGCGCGAGATCC 1386

QY 311 TGCAGGTGCGCGCGCGACACCCC 333
Db 1387 TTCAGGTCGGAAGTGAAGACAC 1409

RESULT 10
US-10-858-730-142
; Sequence 142: Application US/10858730
; Publication No. US2005025568A1
; GENERAL INFORMATION:
; APPLICANT: Bailey, Richard B.
; APPLICANT: Blomquist, Paul
; APPLICANT: Doten, Reed
; APPLICANT: Driggers, Edward M.
; APPLICANT: Madden, Kevin T.
; APPLICANT: O'Leary, Jessica
; APPLICANT: O'Toole, George
; APPLICANT: Trueheart, Joshua
; APPLICANT: Walbridge, Michael J.
```

```
; APPLICANT: Yorgey, Peter S.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID
; FILE REFERENCE: 14184-030001
; CURRENT APPLICATION NUMBER: US/10/858,730
; CURRENT FILING DATE: 2004-06-01
; PRIOR APPLICATION NUMBER: US 60/475,000
; PRIOR FILING DATE: 2003-05-30
; PRIOR APPLICATION NUMBER: US 60/551,860
; PRIOR FILING DATE: 2004-03-10
; NUMBER OF SEQ ID NOS: 364
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 142
; LENGTH: 3513
; TYPE: DNA
; ORGANISM: Streptomyces coelicolor
; US-10-858-730-142

Query Match 4.1%; Score 99.8; DB 6; Length 3513;
Best Local Similarity 43.6%; Pred. No. 3.3e-08;
Matches 959; Conservative 0; Mismatches 1182; Indels 60; Gaps 9;

QY 203 CCGAGCGCCAGGCCCACTTTCTCCGAGAGACTGAGCTTCCCGAGGCGCAAGCCCGG 262
Db 857 CCGAGCGCACAGCACTTCTGTCGCGAGTACGCGCTGCTCTGTCGCGAGCTGCG 916

QY 263 AGTTCGCCAGGAGAGCAAGCCGCGCAAGCCCAAGCCCAAGCGCGAGTGCAGAGTCGCG 322
Db 917 GCAACCAAGCCGAGCACTGCGCGCAAGTGTGAGCGAGGTCGAGACACCGCCCAACCG 976

QY 323 GCGACACCCCGCGAGCGAGCGCGCGCG---AGCGCAAGGCAACCTGAACTTCCCGC 379
Db 977 CAGCGAGCCCGCGCGCGCGCGCGCGCGCGCGCTGCTTACAGACCGTGCCTTCCGCG 1036

QY 380 AGATCACTCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 433
Db 1037 AGGACACCTCTCACTGCGCGCATGCGAGCGAGCAACCGCGCGCGCGCGCGCGCGCG 1096

QY 434 AGGAGCGCGTGTGAGCAACCGCGCGCGAGCAACCGCGCGCGCGCGCGCGCGCGCGCG 493
Db 1097 GCGAGCGCATGCTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1156

QY 494 GCAAGTGAAGCCCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 553
Db 1157 GCGAAGCGCGCGCAAGTGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1216

QY 554 ACCAGATCTGATTCGAGATCTGCGCGCGAGAGGCGCATCGGACCGTGTGATGCGCGCA 613
Db 1217 ACATGAGAGAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1276

QY 614 CCGCGGTGAACATTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 673
Db 1277 CCACCGAGGTCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1336

QY 674 CCATGAGCGCGCATTCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 733
Db 1337 ACTCGGTCAACTACAGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1396

QY 734 TGAAGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 793
Db 1397 TCGCCCGGAGAGCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1456

QY 794 TGAAGAGAGAGGAGCAAGTCAAGATCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 853
Db 1457 GCAAGCGCGAGAGAGAGTGAAGTGCAGAAAGCTCATTCAGAGCTTCAAGCGCGCGCG 1516

QY 854 TCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 913
Db 1517 GGGGATTCAGAGTCCAGATCTCTGTGAGCTGAGCTTCAAGATCTGAGCGCGCGCGCG 1576

QY 914 ACAAGCGCACCGAGAGCTTCTGAGAGTGAAGTGTGAGAGTCCCGCACCGCGCGCGCG 973
Db 1577 AGGAGAGTCCGCGCAAGAGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1636
```

QY 974 AGAAGAAGAGAGCTGACCTGTCGACGTGGCGACCGCTTACCTTCAAGCTGCCCTTGG 1033  
 DB 1637 GCCACCCGAGACGTGAGAGACGAGCTGCTGTGAAACATCTCTTCCGCTCAACCCGG 1696  
 QY 1034 ACGAGAGCTTCCGCAAGTACACGCTTTCACCATCCCAAGATCAA---CAAGAAACC 1090  
 DB 1697 CCGCCCGCATCTGCTCAATCCGCTCTTCTTCAGCAAGATCGTCAAGGCGGCGCTGACT 1756  
 QY 1091 CCGGCACTCCGCTACAGTACAGTGTGCTGCCAAGGCTGAAAGGAGGCCAGCATCT 1150  
 DB 1757 CGGCACTGTGCAAGGAGCAAGATCTGCTC-----GATGCGCCGCTTGAAGAG 1807  
 QY 1151 TCCAGAGCAGCATGACCAAGATCTTGAAGCTTTCGCGCCCGCAACCCCGAGATGCTGA 1210  
 DB 1808 AGAGAGTCAACACCGGCTTGTGATCTTACGACGCGCGCGAGAGGCTTACGACCCCG 1867  
 QY 1211 TCTAACAGGCCCCCTGTACGTGGGAGCGACCTTGAGATCGGCAAGACCGGCGCAAGA 1270  
 DB 1868 TGCAAAAGCTCATGCAAGCTTTCGAGGGCGCACCGCAAGTGTGTAAGGCTTCAGAG 1927  
 QY 1271 TCGAGAGCTGCGCAGACCTGCTGCGCTGCGGCTTACACACCCCGCAAGAAAGACCC 1330  
 DB 1928 CCGAGGAACCTGGCCGCTCCGCTGAGAGAGCGCTTCAAGCGCTGATCATGACGGCG 1987  
 QY 1331 AGAAGAGCCCTTCTCTGCTCCATCGAGCTGCAACCCCGCAAGTGAACGCTGACGCCA 1390  
 DB 1988 AGAAGAAAGGCTTGAACAGGACCTTCAAGAGGCTTCCGGAGCG-----2033  
 QY 1391 TCGAGCTGCCGAGAGAGAGCTGGAACCTGAAACGACATCAGAAAGCTGTGGGCAAGC 1450  
 DB 2034 -CCGCGCTTGAAGATGTCACACGACCTGCTGACGATGTAAGGCTGTGCGGCAAGC 2092  
 QY 1451 TGAATCGGCGCAGCAGATCTAACCCGCGCATCAAGTGTGCGCAGCTGTGCAAGCTGTGC 1510  
 DB 2093 TGTTCGCTCTCGGCAATGCAAGTGTGCGCTTCT---GTGCTCAATCCGCGGATCATGA 2149  
 QY 1511 GCGGCGCAAGGCTCTGACCGACATCGTGTGCTGACCGAGAGGCGGAGCTGAGCTGG 1570  
 DB 2150 AGACCGGGGTGGCTCTCTGAGAGCGGCAATGAGAAACCGACGACG-----2198  
 QY 1571 CCGAGAAACCGGAGATCTGTGCGGAGCGCTGACCGGCGTGTACTAGACCCCAAGAG 1630  
 DB 2199 -CGGCAAGGGGACATGCTGTGCGCACCGTCCGCGGAGAGTCAACGACATCCGCAAGA 2257  
 QY 1631 ACTGTGTGCGGAGATCTCAAGAGAGGCGGCGACGACGTGAGCCTTACAGATCTAACAGG 1690  
 DB 2258 ACTTGTGTGATCATCTGTTCACCAACGAGCTACAGTGTCAACTTGGCATTCAGGC 2317  
 QY 1691 AGCCCTTCAAGAACCTGAAAGACCGGCAAGTACGCAAGATGCGACCGCCACACCAAGC 1750  
 DB 2318 AGCCCGTCTCGGCAATCTGGAAGCGGCGGACGAGCACCGGGCGGAGGTATCGGCAATGT 2377  
 QY 1751 ACGTGAAGCAGCTGACCGAGGCGGTGACGAAGATGCGCATGAGAGCATCTGTATCTGGG 1810  
 DB 2378 CCGGCGCTCTGATCAAGTCAACGAGTATCATGAAGAAACCTGAGAGAGCTGAAACAGC 2437  
 QY 1811 GCAAGACCCCAAGTTCCGCTGCGCCATCCAGAAAGAGACCTGGGAGACCTGTGTGAGACG 1870  
 DB 2438 GCAAGCTGCGCGGCACTAACCGGATCTTCGCGGCGGCGGCTTCAACAGGCGCTTACG 2497  
 QY 1871 ACTACTGCGAGGCACTGTATCCCGAGTGGAGTTCGTGAACACCCCGCTGCTGTGA 1930  
 DB 2498 TCGAACAGAGCCTGACAGATCTACAGAGGAGGTTCGATGCGCGCGGCGACGCTTTCG 2557  
 QY 1931 AGCTGTGTACCAAGCTGAGAGAGAGCCCATATGCGGCGGAGACCTTCTTACGTGAGCG 1990  
 DB 2558 AGGGCTGCGCTCATGGA-----CGCCCTCATGCGGCAATCAAGCGCGCGCTGCGCG 2608  
 QY 1991 GCGCGCGCAACCGGAGACCAAGATCGCAAGAGCGGCGCTAGTGAACGACGCGGCGCGG 2050  
 DB 2609 GCGCAAGCTGCGGAGCTGAAGACAGCGCGGAGTGGCGCGCCACCGTCAAGATGACG 2668

QY 2051 AGAAGTGTGAGCGCTGACCGAGACCAACCAACGAGAGCTGACGCTCATCAGC 2110  
 DB 2669 AAGCGCCCGAGAGAGGCCACGTCCTGCTCGAGCTGCGCACCGAACCCGGTCCGAGCC 2128  
 QY 2111 TGGCCCTGAGAGACAGCGGACAGAGGTGAACATGTGTGACCGACGCAATGACCTTGG 2170  
 DB 2729 CCGCTTCGCGGACACCGCGTGTGTCAAGGAGATCAAGCTCAAGAGTACGCTCTTGGC 2788  
 QY 2171 GCATCATCAAGCGCCAGCCCGACAGAGCGAGACGATGTGTGAACCAAGATCATGAGC 2230  
 DB 2789 TCGACGAGGCGCGCTTTCAGAGGCGAGTGGGCTTCAAGAGCGCCGACCGGCGAGG 2848  
 QY 2231 AGCTGATCAAGAGAGAGAGTGTACTGAGCTGAGTGCCTCCGCGCAAGAGGATCGCGC 2290  
 DB 2849 GACCTTCTACGAGAACTGTGTGATCCGAGGCGCGGCTGCGGCTGCGGCTGTGCG 2908  
 QY 2291 GCACGAGAGATGCAAGAGCTGTGAGCAAGGCAATCCGCAAGTGTCTTCTTGAAGC 2350  
 DB 2909 ACCGGCTCAAGAGAGCAACCTTTTGAAGCGGCGGTGTCTACGCTACTTCCCTGCG 2968  
 QY 2351 GCATCATGCGCGCATGTGTATCTTACAGTACATGAGACAGC 2391  
 DB 2969 TCTCAAGGACGACGACGATGTGTCTCGACGACGAGCGGC 3009

RESULT 11  
 US-10-858-730-38  
 ; Sequence 38, Application US/10858730  
 ; Publication No. US2005025568A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Bailey, Richard B.  
 ; APPLICANT: Blomquist, Paul  
 ; APPLICANT: Doten, Reed  
 ; APPLICANT: Driggers, Edward M.  
 ; APPLICANT: Madden, Kevin T.  
 ; APPLICANT: O'Leary, Jessica  
 ; APPLICANT: O'Toole, George  
 ; APPLICANT: Trueheart, Joshua  
 ; APPLICANT: Walbridge, Michael J.  
 ; APPLICANT: Yorgey, Peter S.  
 ; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID  
 ; FILE REFERENCE: 14184-030001  
 ; CURRENT APPLICATION NUMBER: US/10/858,730  
 ; PRIOR FILING DATE: 2004-06-01  
 ; PRIOR APPLICATION NUMBER: US 60/475,000  
 ; PRIOR FILING DATE: 2003-05-30  
 ; PRIOR APPLICATION NUMBER: US 60/551,860  
 ; PRIOR FILING DATE: 2004-03-10  
 ; NUMBER OF SEQ ID NOS: 364  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 38  
 ; LENGTH: 2736  
 ; TYPE: DNA  
 ; ORGANISM: Streptomyces coelicolor  
 ; US-10-858-730-38

Query Match 3.9%; Score 95.2; DB 6; Length 2736;  
 Best Local Similarity 43.9%; Pred. No. 1.8e-07;  
 Matches 605; Conservative 0; Mismatches 758; Indels 15; Gaps 4;  
 QY 30 CCAAGGCCACAGCGCCCAACATCTGTGATGACGCGACGACACTTCAAGGCGCCCAAGCGCAT 89  
 DB 798 CGAGCAGGCGCATCAACGACGCGCTGAGAGTATGACAGAGCTGCGGCTTCTTCCAA 857  
 QY 90 CATGAATGCTTCAACTGCGGCGCAAGAGGCGCAATCGCCCGCACTTCCGCGCCCGCCG 149  
 DB 858 CTCAATCGGTAACGCGGCTGCGACCGAGAACTGTGCTGCTTCCAGGCGGACCTGGA 917  
 QY 150 CAAGAGGCTGTGGAAGTGTGCGGCAAGAGAGGCGCAACGATGAAGAGCTGACAGCGC 209  
 DB 918 ACGCTCCCGAGATACAGCCCGCTACAAAGCGCTTCAACCGCGAGAGCGGCTTACCGGCT 977

```

QY 210 CAGGCGCACTTCTCCGAGAGACTGCGCTTCCCCAGGGCAAGGCCGGAATTCC 269
    |||||
DB 978 CAAAGGCACTGATCCGCGAGAGTGAAGAACAGAGAGCGGCTGCCAAGGGCAC 1037
    |||||
QY 270 CAGCGAGCAACCGGCGCAACAGCCCGACAGCCGAGCTGAGAGTCCGCGAGCA 329
    |||||
DB 1038 CCCCCAGAGAGCGGCGGAGTACTCTCGGACCGGCGCATCTGAGAGACTGCGCAT 1097
    |||||
QY 330 CCCCCGAGAGCGGCGGAGCGGAGGAGCACTTGAACTTCCCCAGATCACTCT 389
    |||||
DB 1098 CGTCCAGACTCTGCTCGGAGAACCGCGCGGCGCTTTCCGCGAGGCGGCTCGCCG 1157
    |||||
QY 390 GTGAGCAGCGCCCTCTGTGAGCATCAAGGTGAGCGGCGAGATCAAGAGAGCCCTGCTGA 449
    |||||
DB 1158 CACCATCCGACCTCTGCGCGCTTCCGAGCTCCAGCTCCGACCATGAGACGTCCGAGAGA 1217
    |||||
QY 450 CACCGGCGCGAGAGACCGTGTGTGAGAGAGATGAGCTGCGCGGAGATGAAAGCCCA 509
    |||||
DB 1218 CCGCGAGCGCCACACACAGCGCCCTCGAGCATCTTGACCGGCTCGGAGAGATCTTG 1277
    |||||
QY 510 GATGATCGGCGGATCGGCGGCTTTCATCAAGGTGCGCGAGTACGACAGATCCTGATCGA 569
    |||||
DB 1278 GCGCTACGCGGAGATCCGCGGAGATACCGACAGAGCTCTGCGAAGAACTGCGC-- 1335
    |||||
QY 570 GATCTCGGCGAAGAGGCGCATCGGACCGTGTGATCGGCGCCACCCCGTGAACATCAT 629
    |||||
DB 1336 -TCCGCGAGCGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGAGAAAGCCCT 1394
    |||||
QY 630 CCGCGCGAATGCTGATCCAGTGTGAGCTGACCTTGAACTTCCCATCAGCCCATCGA 689
    |||||
DB 1395 CG--GCGCTTTCAGACCGTCCGCGCGCGCGCGCGCGCGCGCGCGCGAGTCTTCGA 1451
    |||||
QY 690 GACCGTCCCGTGAAGCGCGCGAGCTGAGCGGCGCGCGCGCGCGCGCGCGCGCGCT 749
    |||||
DB 1452 GTCTTACATCATATCCATGTGCTGAGGCGCGCGCGCGCGCGCGCGCGCGCGCTGAGC 1511
    |||||
QY 750 GACCGAGAGAGATCAAGGCGCTTGA CCGCATCTCGAGAGATGAGAGAGGAGCA 809
    |||||
DB 1512 CCGCGAGCGCGGCTGATGAGCTTGACCGCGCGCGCGCGCGCGCGCGCGCGCGCTGCGCT 1571
    |||||
QY 810 GATACCAAGATGCGCGCGAGAACCCCTTACAAACATCCCGGTGTTGCCATCAAGAAAG 869
    |||||
DB 1572 GCTGAGAGACACGAGAGTGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT--GCTCCG 1628
    |||||
QY 870 GAGAGACCAAGTGTGAGCGAGCTGTGAGCTTCCGCGAGCTGAACAAGGAGCAAGGAGCA 929
    |||||
DB 1629 CGACCCCTCTTACCGCGCGCTGTGCGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCTGCTCG 1688
    |||||
QY 930 CTCTGTGAGGTGCACTGCGCATCCCGCACCCCGCGCGCTGAGAGAGAGAGAGCGT 989
    |||||
DB 1689 CTACTCCGACTCTCCAGTGTGCGGATATCACACAGCCAGTGTGAGAGATCCACCGCGC 1748
    |||||
QY 990 GACCGTGTGAGCTGTGAGCGCTTACTTCAAGCTGCGCTGTGAGAGAGATCTTCCGCA 1049
    |||||
DB 1749 CAGCGCGCGCTGCGGAGCGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCTCTTCCACG 1808
    |||||
QY 1050 GTACACCGGCTTCAACATCCCGAGATCAACAAGAGAGAGAGAGAGAGAGAGAGAGAG 1109
    |||||
DB 1809 CCGCGGCGGAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1868
    |||||
QY 1110 CAACGTGTGCGCGCGAGGCTGAGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1169
    |||||
DB 1869 CTGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1928
    |||||
QY 1170 GATCTGAGAGCTTCCGCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1229
    |||||
DB 1929 GTACTCATCTCCGCGCTGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1988
    |||||
QY 1230 CGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1289
    |||||
DB 1989 GAGCTGCGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2048
    |||||
QY 1290 CCGTGTGCGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1343
    |||||

```

```

DB 2049 CGCGATGAGAGCTGTCTCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2108
    |||||
QY 1344 CTTCCTGCGCATGAGCTGACACCGCGAGAGTGAACCGGACCGCATGAGACTGCC 1401
    |||||
DB 2109 CGACTCGCGACTTCTTCTGAGCTTCCACCGCGGATGACAGCTGCGCGACTGAC 2166
    |||||

RESULT 12
US-11-058-727-5
; Sequence 5, Application US/11058727
; Publication No. US20050261483A1
; GENERAL INFORMATION:
; APPLICANT: Andre R. Adad
; APPLICANT: Ronald D. Flanagan
; APPLICANT: Rafael Herrmann
; APPLICANT: Theodore W. Kahn
; APPLICANT: Albert L. Lu
; APPLICANT: Billy Fred McCutchen
; APPLICANT: James K. Presnail
; APPLICANT: James F.H. Wong
; APPLICANT: Cao-Guo Yu
; TITLE OF INVENTION: Genes Encoding Proteins With Pesticidal
; TITLE OF INVENTION: Activity
; FILE REFERENCE: 35718/287809
; CURRENT APPLICATION NUMBER: US/11/058,727
; PRIOR FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: 60/391,786
; PRIOR FILING DATE: 2002-06-26
; PRIOR APPLICATION NUMBER: 60/460,787
; PRIOR FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: 10/606,320
; PRIOR FILING DATE: 2003-06-25
; NUMBER OF SEQ ID NOS: 134
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 5
; LENGTH: 2010
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(2010)
; OTHER INFORMATION: Maize optimized Cry1218-1
; NAME/KEY: misc. feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: mol1218-1
US-11-058-727-5

Query Match 3.5%; Score 85.2; DB 7; Length 2010;
Best Local Similarity 43.5%; Pred. No. 7.6e-06;
Matches 491; Conservative 0; Mismatches 633; Indels 6; Gaps 2;

QY 197 ACTGCACGAGCGGCGAGGCACTTCTTCCGAGAGAGAGAGAGAGAGAGAGAGAGAG 256
    |||||
DB 881 ACCCGATGAGAGCAAGGCGCGAGCTCACCGGAGGTGTACACAGAGCGGCTGCGCGCG 940
    |||||
QY 257 CCGGAGGTTCCCGAGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 316
    |||||
DB 941 TGAAGCTGTCTCTATCGGCTCTTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1000
    |||||
QY 317 TCGCGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 376
    |||||
DB 1001 CCGCGGTATTCGCGCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1060
    |||||
QY 377 CCGAGATCACCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 436
    |||||
DB 1061 AGTCCGCTCTCATCTCTCTCGCGCGGTACATCCGACCTGAGGCGCGAGAGAGATCTCT 1120
    |||||
QY 437 AGGCGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 496
    |||||
DB 1121 ACCACGCGGTGTCCGCGCGCTCAACCTCAAGAGATGTACGAGCAACAGAGAGAGAG 1180
    |||||

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QY 497 AGTGAAGCCCAAGATGATCGGCGGAGTTCATCAAGTGGCCAGTACGACC 556
DB 1181 ACTCCACCTCCACCTTGAATTCACCACTACGACATCAAGAACCTCTCCAAAGAGC 1240
QY 557 AGATCTGATTCGATCTGGGGCAGAAAGGCCATCGGCAACCGTGTATGGCCCCACCC 616
DB 1241 CCGTGTCTCTCGCAT--CGTGTACCCCGGCTACACTACATCTTCTTGGCATCCGG 1297
QY 617 CCGTGAACATCATCGGCGCCGACATGTAACCAAGTGGGTGACCTTGAACTTCCCA 676
DB 1298 AGGTGAAGTTCTTATGATGTAACACAGCTAAACAACCCGCAAGACCTCTCAATTAAC 1357
QY 677 TCAGCCCCATCGAACCGTGGCCCGTGAAGTGAAGCCCGGCAATGAGGCCCAAGTGA 736
DB 1358 CCGTGTCAAGAGCATCATGATCGCTCCACCCGCACTCCGAGCTCGAGCTCCCGCGAGA 1417
QY 737 AGAAGTGGCCCCCGACCGAGAGGAAGATCAAGGCCCTGACCGGCATCTGGCAGAGATGG 796
DB 1418 CTTCCGACAGCCCACTAGATCTCTATCCACCGCTCTGCGACATCACTCCATCC 1477
QY 797 AGAAGAGGCGAGATCATCAAGATCGGCCCCGAGAACCCCTTCAACAACCCCGTTCG 856
DB 1478 CCGCCACCGGCAACCAACCGGCGCTCGTGGCGGTCTTCGTGAACCCACGCTGCGAG 1537
QY 857 CCATCAAGAGAGAGACAGACAGCAAGTGGCGCAAGCTGTGAGCTTCCGCACTGAACA 916
DB 1538 ACCTCAACACACATCTACTCCGACAAAGATCAACCCAGATCCCGCGGTGAAGTGTGG 1597
QY 917 AGCGCACCCAGAGCTTGTGGAGAGTGAAGTGGGCAATCCCGCAACCCCGCGGCGTGA 976
DB 1598 ACAACCTCCCTTGTGTCGCGTGTGAAGGAGCCCGGCAACCGGCGGAGCTCTTCC 1657
QY 977 AGAAGAGAGCGTGAACCGTGTGGAACGTGGGCGACGCTTCAAGCGCTCCCTGAGC 1036
DB 1658 AGTACACCGCTCAGCGGCTCGTGGGCAACCTCTTCTGCGCGTGAAGGCTGCGCC 1717
QY 1037 AGGACTTCCGCAAGTACACCGCTTCAACATCCCAAGATCAACAAGAGACCCCGGCA 1096
DB 1718 TGGAGAGGCGCGAGATACGCGTGGCGCTCGCTACGCGCATGAGCGCGACATCTGTC 1777
QY 1097 TCCGCTACAGATCAAGTGTGTGCGGCGAGGCTGGAAGGAGCGCCAGCATCTTCAGA 1156
DB 1778 TCCACGTGAACGAGCGCCAGTCCAGATGCCCCAAGACATGAAACCCCGGAGAGACTTCA 1837
QY 1157 GCAAGCATGAC--CAAGATCTTGAGGCCCTTCCGCGCCCGCAACCCCGAGATCTGTATCT 1213
DB 1838 CTTCAAGAACCTTAAAGTGGCCGACGCGCATACCACTCTCACTTGGCCACGACTCTT 1897
QY 1214 ACCAGGCCCTCTGTAGTGGGAGCGAAGCTGAGATCGGCGAGACCGCGGCAAGATCG 1273
DB 1898 CCGTGGCTCTAACAACAACCTCGGCGAGAGCCCAACTCCACTCTCGGCGATGTGT 1957
QY 1274 AGGAGTGGCGAGACCTGCTGGGCTGGGCTTTCACCAACCCCGGCAAG 1323
DB 1958 ACGTGAACCGCATGAGTTCACTCCCGTGAAGAGACCTAAGAGCGCGAG 2007

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RESULT 13
US-11-108-389-5
; Sequence 5, Application US/11108389
; Publication No. US20050261188A1
; GENERAL INFORMATION:
; APPLICANT: Andre R. Abad
; APPLICANT: Ronald D. Flannagan
; APPLICANT: Rafael Herrmann
; APPLICANT: Theodore W. Kahn
; APPLICANT: Albert L. Lu
; APPLICANT: Billy Fred McCutchen
; APPLICANT: James K. Prensail
; APPLICANT: James F. H. Wong
; APPLICANT: Gao-Guo Yu
; TITLE OF INVENTION: Genes Encoding Proteins With Peptidic
; TITLE OF INVENTION: Activity

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; FILE REFERENCE: 35718/291049
; CURRENT APPLICATION NUMBER: US/11/108,389
; PRIOR FILING DATE: 2005-04-18
; PRIOR APPLICATION NUMBER: 60/391,786
; PRIOR FILING DATE: 2002-06-26
; PRIOR APPLICATION NUMBER: 60/460,787
; PRIOR FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: 10/606,320
; PRIOR FILING DATE: 2003-06-25
; NUMBER OF SEQ ID NOS: 134
; SOFTWARE: FaSTSeq for Windows Version 4.0
; SEQ ID NO 5
; LENGTH: 2010
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(2010)
; OTHER INFORMATION: Malze optimized Cry1218-1
; NAME/KEY: misc_feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: mol218-1
US-11-108-389-5

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Query Match 3.5%; Score 85.2; DB 7; Length 2010;
Best Local Similarity 43.5%; Pctd. No. 7.6e-06;
Matches 491; Conservative 0; Mismatches 633; Indels 6; Gaps 2;

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QY 197 ACTGACCGAGCGCGAGCCCACTTCTCCGACGAGACCTGCTTCCCGAGGCGAAG 256
DB 881 ACCCATGAGACCAAGGCCCACTCACCGGAGGTACACGACCGCTGGCGCGC 940
QY 257 CCCGAGATTCCCGACGAGCAGAACCGGCGCAACGCCCAACCGGAGCTGAGC 316
DB 941 TGAACGTGTCTCATGTGCTTGTGATGACAGCAAGGCCCAAGCTTGGGTATGAGT 1000
QY 317 TGGCGCGGACCAACCCCGGAGGAGCGCGGCGCGAGCGCGAGGCAACCTGACTTC 376
DB 1001 CTTCCGTGATCGCGCGCGACGATGTGATACATACCGGCTTACCGGTGACACC 1060
QY 377 CCCAGATCACTGTGGCAGCGCCCTGTGTGAGATCAAGTGGGCGCGAGTCAAG 436
DB 1061 AGTCCGCTCATCTCTCGCGCCGCTACATCGGCCACCTGGCGCGCACAGATCTCT 1120
QY 437 AGGCGCTGTGACACCGGCGCGAGCAGACACCGTCTGAGAGATGAGCTTCCGCGCA 496
DB 1121 ACCACCGCGTGTCCCGGCGCTCCAACTCCAGAGATGTACGGCACCAACGAACTTCC 1180
QY 497 AGTGAAGCCCAAGATGATGGGCGCATCGGCGGCTTCAACAGTGGCGCAATGAGACC 556
DB 1181 ACTTCACCTTCACCTTGTGATTTCAACCAATGACATCTACAGACCTTCTCCAAAGAGC 1240
QY 557 AGATCTGATCGATGTGGGCAAGAGCCATCGGCAACCGTGTGATCGGCCCAACC 616
DB 1241 CCGTGTCTCGACAT--CGTGTACCCCGGCTACACTATCTTCTTGGCATGTCCG 1297
QY 617 CCGTGAACATCATCGGCGCGCAACATGTGACCCAGTGGCTGACCTTGAATTTCCCA 676
DB 1298 AGGTGAAGTTCTTATGATGTAACACAGCTAAACAACCCGCAAGACCTCTCAATTAAC 1357
QY 677 TCAGCCCCATCGAACCGTGGCCCGTGAAGTGAAGCCCGGCAATGAGGCCCAAGTGA 736
DB 1358 CCGTGTCAAGAGCATCATGATCGCTCCACCCGCACTCCGAGCTCGAGCTCCCGCGAGA 1417
QY 737 AGAAGTGGCCCCCGACCGAGAGGAAGATCAAGGCCCTGACCGGCATCTGCGAGAGATGG 796
DB 1418 CTTCCGACAGCCCACTAGATCTCTATCCACCGCTCTGCGACATCACTCCATCC 1477
QY 797 AGAAGAGGCGAGATCAACAGATCGGCCCCGAGAACCCCTTCAACAACCCCGTTCG 856
DB 1478 CCGCCACCGGCAACCAACCGGCGCTCGTGGCGGTCTTCTGTGAACCAACCGCTGTGAG 1537

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Oy	857	CCATCAAGAAGAAGACAGGACCAAGTGGGCGAAGCTGGTGGACCTTCCGCGAGCTGGAAACA	916
Db	1538	ACCTCAACACACCATCTACTTCCGACAAAGATCAACCGAGATCCCCGGCGTGAAGTGTGGG	1597
Oy	917	AGCGCACCCAGGACTTCTGGAAGGTGACGCTGGGACATCCCCACCCCGCGGCTGAAGA	976
Db	1598	ACAACCTCCCTTGTCGCCGTGGTGAAGGAGCCCGGCGCACACGGCGGCGACCTTCCTCC	1657
Oy	977	AGAGAAGAGGTGTACCGTGTCTGACGTGGGGGACACCGCTTACCTTCAACGTGGCCCTGGANG	1036
Db	1658	AGTCAACCCGTTCCACCGGCTCGGTGGACACCTCTTCTCGCGCGCTTACGGCTTGGCCC	1717
Oy	1037	AGGACTTCGCGAATGACACGCGCTTTCACCATCCCGACATCAACAAGAGAGACCCCGGACA	1096
Db	1718	TGGAGAAAGCCCGGAATGACCGGTGGGCTCTCCGCTTACGCGACATGAGGCGACATGTGTGC	1777
Oy	1097	TCCGCTACACGATACACGTGTGCCCCGAGGCTGGAAAGGGAGCCCCCAAGATCTTCCAGA	1156
Db	1778	TCCACGTGAACGAGCGCCACGATCCAGATGCGCAAGACCATAGAAACCCCGCGAGGACCTTCA	1837
Oy	1157	GCAGCATGAC---CAAGATCCTGGAGGCCCTTCCGGCGCGCGCAACCCCGAGATCGTGAATCT	1213
Db	1838	CTTCCAAAGACTTTCAGAGGTGGCCGACGCGCATACACACTCTCAACCTTGGCGACCGAATCTCT	1897
Oy	1214	ACGAGGCCCCCTGTACGTGGGACGCGACCTGGAGATTCGGCCGACGACGCGCGCAAGATCG	1273
Db	1898	CCCTCGCCCTCAAGCAACAACCTGGCGAGGACCCCAACTCACAACCTCTCCGGGATGTGT	1957
Oy	1274	AGGAGCTGGCGAAGCAGCATCTGTGGCTGTGGGCTTTCACCAACCCCGGCAAG	1323
Db	1958	ACGTGAGACCGATGAGATTATCCCTCGTGAACAGACATTAAGAGGCCGAG	2007

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RESULT 14
US-11-075-185-2
; Sequence 2, Application US/11075185
; Publication No. US20050266434A1
; GENERAL INFORMATION:
; APPLICANT: REEVES, CHRISTOPHER D
; APPLICANT: JULIEN, BRYAN
; APPLICANT: REID, RALPH
; TITLE OF INVENTION: BIOSYNTHETIC GENE CLUSTER FOR AMBRUTICINS
; FILE REFERENCE: 010099.03
; CURRENT APPLICATION NUMBER: US/11/075,185
; CURRENT FILING DATE: 2005-03-07
; PRIOR APPLICATION NUMBER: US 60/551,103
; PRIOR FILING DATE: 2004-03-08
; PRIOR APPLICATION NUMBER: US 60/566,290
; PRIOR FILING DATE: 2004-05-04
; NUMBER OF SEQ ID NOS: 61
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 2
; LENGTH: 14172
; TYPE: DNA
; ORGANISM: Sorangium cellulosum
US-11-075-185-2

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	Query Match	Similarity	3.3%	Score 81.4	DB 7	Length 14172
	Best Local	Similarity	44.5%	Pred. No. 3e-05		
	Matches	564	Conservative	0	Mismatches 676	Indels 27
					Gaps	5
QY	224	TCGCGAGGAGCATCTGAGCTTTCCTCCCGAGGCAAGGCGCCCGAGTTTCCCGAGGAGCAGAACCC	283			
DB	11205	TACGGCGCATCCCGCGGCGACCCCGGAAAGCCCGCGCGCGCTTGCGCCCGCTGTC	11264			
QY	284	GCGCCACAGCCCCACAGCCCGAGGTGCGGCGGCAAAACCCCGAGCGAG	343			
DB	11265	CCGCGCGCGCGCCCGGACGACTTCAGCAGACAGCATCGCAGCGCTTTGCGCTGCGCGC	11324			
QY	344	CCGGCGCCGAGAGCGCAGAGGACCTTGAATTTCCCGCAGATACACCTG---TGGCAGCGCC	400			
DB	11325	TGGGCGCTCGGGCCCGAGGCGCAGAGCGGGTTCACCCGCGCCTTCTCTTGGCGGGGCTCGGGG	11384			

OY	401	CCCTGGTGAACATTCAGAGTGGGGGCGACATCAAGAGGCGCTGGCTGGACACCGGCGCG	460
Db	11385	GCGGGGGGCGCGGCTTCGAGCTTGACCCGCGGCGCTGGGCGACCTTCGACCAAGCGCTGT	11444
OY	461	ACGACACCGTGTGAGAGAGATGAGCGCTGCGCGCAAGTGAAGGCCCAAGATGATCGGCG	520
Db	11445	CGTTCACTTACGACGAGCGCGCGCGAACCTTCGCGGAGCTCGCGGCGCTGACGCGCCGAGT	11504
OY	521	GCATCGGCGGCTTCATTCAGAGT---CGCCAGTACGACCAAGTCTTGATTCGAGATCTGG	577
Db	11505	GCGCTCTCCGCGCGGAGAGTTCTTCAGCGCACAGAGATCGTGCCTCTGCTCGAGAAAGAG	11564
OY	578	GCAAGAAAGCCATCGGACCGGTCTGATCGGCGCCGCGCGTGAACATCATCGGCGCGCA	637
Db	11565	CCATTCGAGCGAAGGGGCTGACGCAAGCTGCTTTGAGGCCCGAGACGCTGCCGTTCTCG	11624
OY	638	ACATGCTGACCCGAGCTGGGTGGCTGACCCCTGAATTCTCCCATCAGCCCATCGAGACCGTGC	697
Db	11625	AGAAAGAACGTTCGAGCTGTGTGCCACGCTCATGAGCGCCAAAGGGCCCTCATC---CCGACG	11681
OY	698	CCGTGAAGCTGAAGCCCGGCGATGAGCGGCGCCCAAGGTGAAGCATGAGCCCTTGACCGAGG	757
Db	11682	CCGGCGGGGAGACCGCGCCGGCGAATGTGTGCGAGAGGTCTGTGAGAGAGGTGCGGCGCGCG	11741
OY	758	AGAAATCAAGGCGCCTTGACCGGCATCTGGAGAGAGATGAGAAAGAGGGCAAGATCACCA	817
Db	11742	TCGAGTCCGAGGTTCGACCGCGCGTCTTGCGCGCGCTGGCGGAAACAGAGAGCCGCG	11801
OY	818	AGATCGGCGCCCGAGAAACCCCTTACCAACCCCGGTGTTTCGCATTCAGAAAGAGACAGCA	877
Db	11802	TGCGCGTCTTCAGAGAACTTCGATGGAAGGCAACATTCGCGAAAGACCTGAAGGGGTGGG	11861
OY	878	CCAAGTGGCGCAAGCTGTGTGAATTCCGCGAGCTGAACAAGCGCACCCAGACTTCTGGG	937
Db	11862	ACGCGGAGCGGCGCGCGCTGTCTCCGAGCAAGAGCTCATTTCTGGCGMAACGAGACGCGAA	11921
OY	938	AGGTGCGAGCTGGGCAATCCCGCAACCCCGCGCGCCTGAAGAAAGAGCGGAGACCGTGC	997
Db	11922	GGCACGAGTGGAGAGTGTGCATCTGTGTGACCAAGTCTGAGCTTCGATGGGCGAGAGGCTGC	11981
OY	998	TGGACTGTGGGCGAGCGCTTACTTCAGCGTGGCCCTTGACAGAGACTTCCGCAAGTACACCG	1057
Db	11982	TCACAGCTCATATCATGAGCGGCGCATTTGGCGTCTGCACAGTCTCCGCGACCCGCGCTCC	12041
OY	1058	CTTTGACCATCCCGAGCATCAACAAGAGACCCCGGCGATCCGCTTACAGTCAACGTTGC	1117
Db	12042	TCCTTCTTGACACCGAGGTGTGTGACGTGATCCGATGTCGATCCGATCCGATCGAGTGC	12101
OY	1118	TGCCCGAGGCGTGAAAGGCGAGCGCCAGCATTTTCCAGAGCAGCATGACCAAGATCTGG	1177
Db	12102	TGTTCAAGGCGGAGCTTCGGCGGCGGACCGACATCAACCGCGCGCTGAGCTTACGCCACAG	12161
OY	1178	AGCCCTTCGCGCGCGCGCAACCCGAGATGTGTATCAACG---GCCCGCTGTACGTGG	1234
Db	12162	CGAATTCATCGAGCGACCCGAGAGAGCGTGTCTCATCTGATCAACGACTGTGTCAGG	12221
OY	1235	GCAAGCATCTGAG-----ATCGGCGCAGACCGCGCGCAAGATCGAGAGC	1279
Db	12222	GCGGCAACCGGAGAGAGCTGTGGCGGCGCATGGCGCAGCGCTCGCGCACAGAGTGAAGT	12281
OY	1280	TGCGCAAGCACCCTGTGCGCTGGGCGCTTACCAACCCCGCAAGAAAGCACAGAAAGAGC	1339
Db	12282	CGATCTGCTGTGCGCGCTGTGCGAGCGCGGAAAGCCCTGTATCGACACAGAGATGGCGC	12341
OY	1340	CCCCCTTCGTGCCATTCGAGCTGCAACCGACAAAGTGAACCGTGTGAGCCCATCGAGCTGC	1399
Db	12342	AGAAAGCTCGCGCGCTTCGAGACCCCGTGTTCGCGTGCACGCGCAAGAGCTGTCTGTCAAG	12401
OY	1400	CCGAGAGAGAGAGCTGACCGTGAACGACATTCAGAAAGCTGTGTGGCGAAGCTGAACCTGGG	1459
Db	12402	TGTGTGAGCGGCTCATGTGAGAGTCAAGACCTTCGCGCGCTGTCTCGCGCGCGAGGCGCGGT	12461
OY	1460	CCAGCCA 1466	



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